Elizabethtown College

Elizabethtown, Pennsylvania

Elizabethtown College

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Contents

Introduction 1

Mission, Vision and Values 2
Academic Goals 4
Our History 4
Elizabethtown College Today 6
Admission to the College 7
Financial Aid Information 12

Academic Program 15

Degrees Offered 16
The Core Program 16
Academic Majors 22
Academic Minors 24
Program Variations and Options 25
Hershey Foods Honors Program 25
International Study Programs 27
Center for Student Success 31
Center for Continuing Education and Distance Learning 32

Course Descriptions 33

Biology 34
Business 45
Chemistry & Biochemistry 60
Communications 67
Computer Science 76
Education 82
English 95
Fine and Performing Arts 104
History 127
Mathematical Sciences 131
Modern Languages 137
Occupational Therapy 145
Philosophy 155
Physical Education and Health 159
Physics and Engineering 162
Political Science 170

Psychology 176
Religious Studies 181
Social Work 189
Sociology and Anthropology 193

Interdisciplinary Programs 199
Biology/Allied Health 200
Premedical Primary Care Program 201
Premedical and Other Health Care Professions Programs 203
Primary Care Pre-Admissions Program 205
Forestry and Environmental Management 208
Peace and Conflict Studies Minor 210
Political Philosophy and Legal Studies Major 211
Pre-Law Program 211
Social Sciences Certification 212
Citizenship Education Certification 213
General Science Certification 214
General Science Minor 214
Anabaptist and Pietist Studies Minor 215
International Studies Minor 216
Human Services Minor 217
Women and Gender Studies Minor 217

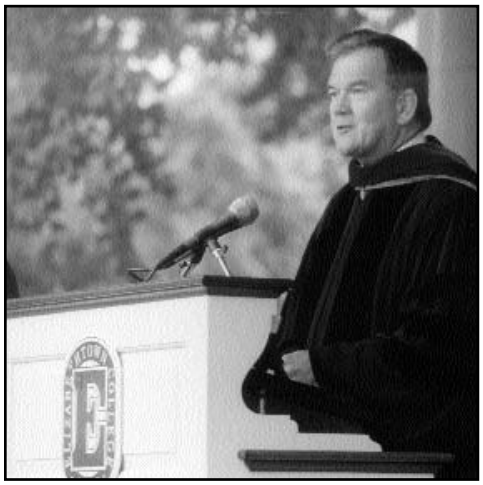
Academic Policies 219

Student/College Life 241

Tuition and Fee Information 247

Directory 253

Index 277



Introduction

Mission, Vision and Values
Academic Goals
Our History
Elizabethtown College Today
Admission to the College
Financial Aid Information

Introduction

Our Mission

Elizabethtown College is a community of learners committed to independent thought and personal integrity as the foundations of a life of learning. Our mission is to nurture sound intellectual judgment, keen moral sensitivity, and an appreciation for beauty in the world. High standards of leadership and scholarship are the foundations of our distinctive blend of the liberal arts and professional studies. In keeping with the heritage of the Church of the Brethren, a historic peace church like the Quakers and Mennonites, the College affirms the values of peace, non-violence, human dignity, and social justice and seeks to make those values manifest in the global community. "Educate for Service" expresses our belief that the pursuit of knowledge is most noble when used to benefit others.

Our Vision

Elizabethtown is a place of intellectual adventure where boundaries are erased and the excitement of discovering new ideas occupies center stage. Learning occurs in and outside the classroom. Faculty are actively engaged in scholarly activity because the College values intellectual curiosity, and this important work informs and enhances teaching. Members of the College community come from all walks of life and backgrounds, and this mix enriches the culture of the campus. Respected for their diverse and unique contributions, community members also possess a sense of common purpose. Elizabethtown College, in its pursuit of excellence and distinction, embodies three characteristics:

Expressions of Our Heritage. Service to others is held as one of the highest ideals of the community and is integrated into campus life. The College also supports the belief that "the world of work and world of the spirit" inform and strengthen each other. The community encourages a genuine dialogue between faith and learning and affirms the pursuit of religious expression, spiritual values, and the search for universal truths.

A "Hand-Crafted" Education. Elizabethtown provides an education suitable to the learning aspirations of each student, where students and faculty mentors explore knowledge as they seek new insights together.

Program Integration. One of the most distinctive hallmarks of an Elizabethtown education is its blend of liberal arts and professional programs, found within individual departments as well as across the curriculum.

Our Values

Institutional values at Elizabethtown College are shared ideas about what is right and good within the community. Principal among these values are:

Learning. In this community, all are learners, and learning takes place inside and outside of the classroom.

Service. The College motto, "Educate for Service," expresses the goal that everyone should be aware of the needs of others and act in such a way as to benefit others.

Personal Attention. The College takes seriously its mission of providing personal attention to the needs of all students and all employees.

Support. We are a nurturing community that seeks to develop a sense of care and concern while at the same time fostering independence and responsibility in our students.

Partnership. The College values and affirms the contributions made by all sectors of the community.

Excellence. We seek excellence in scholarship, in cocurricular activities, in athletics, and in all operations of the College.

Leadership. The College seeks to provide each person with opportunities to discover and develop her/his inherent potential for leadership.

Order. People at Elizabethtown expect moral principles and procedures to be followed.

Peace and Justice. Because of the College's origins in the Church of the Brethren, the values of peace, non-violence, human dignity, and social justice are central to curricular and cocurricular activities.

Integrity. The College expects all members of the community to support its code of integrity, which explicitly encourages high moral standards based on mutual respect and trust.

Elizabethtown College Pledge of Integrity

Elizabethtown College is a community engaged in living and learning experience, the foundation of which is mutual trust and respect. Therefore, we will strive to behave toward one another with civility and with respect for the rights of others, and we promise to represent as our work only that which is indeed our own, refraining from all forms of lying, plagiarizing, and cheating.

Academic Goals

The goals for the Elizabethtown College academic program are reflected in these general statements of educational philosophy:

The student will pursue three types of study:

1. A general education (core) requirement in order to develop an analytical and relational process of thought, clear and coherent means of self-expression, and a growing understanding of the self and his or her environment through distributional and integrative requirements in the liberal arts.
2. A specific education requirement or major, preparing him/herself for career opportunities and/or graduate or professional study by adding the different experience of specialized in-depth knowledge to the breadth of the general educational requirements.
3. A body of electives ensuring flexibility in each student's program that best suits individual needs and interests, whether in general or major areas of study.

The distinctive Elizabethtown College academic program seeks to achieve the following goals for students and faculty:

1. Respond to contemporary needs for greater international understanding by providing general education in intercultural studies and languages.
2. Provide support in both general education and major programs for cross-disciplinary and interdisciplinary education.
3. Maintain a balance between professional and liberal arts programs: for major disciplines of study, by including opportunities for the liberal arts traditions of sciences, fine arts, humanities, and social sciences as well as professional disciplines.
4. Provide for adult educational opportunities in a variety of traditional and non-traditional modes.
5. Foster an environment supportive of faculty research and faculty professional development.
6. Support as part of its regular educational programs quality experiential learning programs such as clinical experiences, faculty-student scholarly collaborations, supervised internships, field study, and other off-campus courses, and similar activities.
7. Support or develop as appropriate, strong cooperative programs with other institutions of higher learning.

Our History

Founded in 1899, Elizabethtown College is a centennial college, one of dozens of like institutions founded in the 19th century by churches or church members for the educational advancement of their denominations. Elizabethtown's heritage lies

with the Church of the Brethren, one of three historic peace churches, along with the Quakers and Mennonites.

During its first two decades, the College functioned both as a college and an academy for high-school-age students to bolster its program in teacher training. By the end of the 1920s, Elizabethtown enrolled 180 full-time students and 300 part-time students in 11 major programs: history, English, modern languages, business, mathematics, education, sociology, biology, chemistry, music, and Bible studies.

Student life outside the classroom soon blossomed: a literary society was formed in 1920; the Alma Mater was composed by Jennie Via for a quartet of her music students; the *Etonian* yearbook was first published in 1922; the men's and women's intercollegiate debating society began in 1925; a small student orchestra appeared in 1927; men's and women's basketball and men's baseball teams began competing toward the end of the decade; and the Sock & Buskin drama club's first performance was produced in 1930.

By 1948, the College's advancement was recognized by accreditation in the Middle States Association and, in the following year, by acceptance in the American Council of Education. In 1950, Elizabethtown embarked on an ambitious fund-raising program to increase the endowment and build much-needed facilities to accommodate a rapidly expanding student body, which by 1958 had grown to almost 800. The library was moved from the first floor of Rider Hall to Zug Memorial Library, which was completed in 1950. In the following two decades, the College dedicated ten new buildings, including several residence halls, Baugher Student Center, Nicarry Hall, and Thompson Gymnasium.

In the past five decades, Elizabethtown College has continued its spectacular growth. Today, the College offers not only 43 major programs of study, but also more than 60 minors. The student body stands at nearly 1,800 with a full-time faculty of 126 men and women.

The appearance of the campus is vastly changing. In 1989, the Rufus P. Bucher Meetinghouse and Young Center for Anabaptist and Pietist Groups, an internationally renowned center for scholarly research, was opened on the shores of Lake Placida. The High Library opened in 1990, allowing Zug Memorial Hall to be transformed into a performing and fine arts teaching center. The Schreiber Quadrangle, built in 1992, provides opportunities for 120 seniors to experience independent living. Leffler Chapel and Performance Center, built for concerts, lectures, religious services, conferences, and dramatic presentations, was completed in 1995. A two-building, garden-style apartment complex for students, named after the late professor and Dean of Women, Vera Hackman '25, was completed in July 2002. The Brossman Commons, a $12-million expansion of student-centered facilities conjoining the Baugher Student Center and the Annenberg Center, was also completed and dedicated in 2002.

A master land use and facilities plan calls for continued dramatic campus enhancements for the better part of the next decade. A science, mathematics, and engineering center is being designed. Planning has begun for a new academic facility devoted to business. The Kevin Scott Boyd '98 Baseball Stadium opened in

2004, and an expansion of the Thompson Gymnasium facility is expected to begin soon afterward.

Elizabethtown Today

At Elizabethtown College, central Pennsylvania's leading comprehensive college, students learn through experience, guided by attentive faculty in a highly interactive environment. Elizabethtown offers more majors than other similar-sized colleges and a core curriculum that strengthens interpersonal communication, writing, creative thinking, decision-making, and problem-solving skills. Graduates leave armed with the knowledge and skills necessary for a successful career.

Elizabethtown's 43 majors and more than 60 minors or concentrations allow students to tailor their studies in preparation for an array of graduate programs or careers. Some of the most popular fields of study are education, business administration, communications, biology, occupational therapy, international business, English, psychology, social work, engineering, accounting, mathematics, and political science.

Students experience personal attention from 126 full-time faculty, 90 percent of whom hold the doctorate or other terminal degree in their field. The College's student-faculty ratio of 12:1 and average class size of 25 create an interactive learning environment that ensures students are not just numbers or faces in the crowd.

Research, internships, field-work, athletics, music, and student leadership opportunities provide hands-on learning inside and outside of the classroom. Students also find their niche through more than 80 clubs and organizations, including: a student newspaper, radio station, yearbook, literary journal, and television station; religious, musical and theatre groups; national honor societies and departmental clubs; and Student Senate, Students Working to Entertain E-town, and Residence Life Council.

A member of the NCAA Division III and Middle Atlantic Conference, Elizabethtown has a strong tradition of successful athletic teams. Men's intercollegiate teams are sponsored in soccer, cross country, lacrosse, volleyball, swimming, wrestling, baseball, tennis, track and field, and golf. Women's teams are sponsored in basketball, soccer, cross country, lacrosse, volleyball, swimming, field hockey, softball, track and field, and tennis. Most students also participate in the intramural program.

The residential nature of Elizabethtown's campus – where 85 percent of students live in campus residences – provides a home away from home for a diverse student body. The College enrolls 1,800 young men and women from more than two-thirds of the United States and more than 40 foreign countries. For those interested in stretching their wings, Elizabethtown – through Brethen Colleges Abroad, located right on campus – offers study-abroad programs in Europe, Asia, and South America.

During the tenure of Theodore E. Long, the 13th president of the College, a new era of heightened expectations has arisen. The College celebrated its 100th

birthday during a 14-month celebration in 1999-2000. A $25 million fund-raising campaign, whose goal was to double the College's endowment, was successfully completed in June 1999 and a new $35 million fund-raising campaign to help underwrite the costs of the College's construction and to support College programs was announced in 2003.

Founded in 1899 by the Church of the Brethren, Elizabethtown has remained true to its heritage, while continuing to move forward. An ongoing strategic planning initiative has enhanced academic and cocurricular programs and strengthened the College's position as a leader in education. Elizabethtown has been ranked for ten consecutive years as one of the best regional colleges in the country by *U.S. News & World Report.*

Admission to the College

Elizabethtown College strives to attain a diverse academic community. To accomplish this, the Office of Admissions seeks qualified students who come from a wide range of geographic, socioeconomic, ethnic, religious, and cultural backgrounds and whose secondary education has been conducted in a variety of public, private, and parochial settings.

Traditional First-Year Admission

Elizabethtown College emphasizes personal attention throughout the admissions process, and the staff strives to get to know all applicants as well as possible. The application provides an excellent opportunity to determine if we are a good "match" for students, and if they are a good match for E-town.

The Office of Admissions encourages the applications of students who will contribute to and benefit from the College's academic, cocurricular, community service, and cultural programs. Each application is carefully reviewed to determine the student's seriousness in scholarship, talents, and character using the following guidelines:

Applicants must graduate from an accredited secondary school or a state Department of Education-approved program with at least four years of English, three years of mathematics, and two years each of laboratory sciences, social studies, and foreign languages.

Students who have not completed such a course of study may be deemed qualified for admission on the basis of test scores or other means of evaluation.

Recommendations from a school guidance counselor and an academic course teacher must attest to academic ability, potential, and personal character.

The student's aptitude for academic success in college work must be demonstrated through the results of standardized tests such as the Scholastic Aptitude Test (SAT) of the College Board or the American College Testing (ACT) Assessment.

The application form must include reference to participation in activities, the arts, community service, athletics, or other interests beyond the classroom which indicate the talents, leadership, and abilities that the student will bring to the College community. The application must also include a writing sample (essay, personal statement, or graded paper) that provides an example of the student's writing ability.

An interview and campus visit are strongly recommended to all interested students.

The interview is required of students applying to the Hershey Foods Honors Program and strongly recommended for all applicants to the College.

The Application Process

Elizabethtown College admits students on a "rolling" basis with a preferred applied date of March 1. Most prospective students apply before January of their senior year. The admissions staff begins to notify students of decisions after senior grades are available, usually in mid-to late-November, and continues to admit students until late spring.

Students who are offered admission to the College must respond to the offer by May 1 for the following fall semester.

An application is considered complete when the following items are submitted for review:

Elizabethtown College Application for Admission. The use of the online application is encouraged and can be accessed at www.etown.edu/admissions/applying.htm. The Common Application is also accepted. Please enclose a non-refundable application fee, made payable to Elizabethtown College. The $30 application fee is waived for students who apply online or interview on campus. Transfer applicants must complete the "Transfer Students" portion of the application.

School Report and Recommendations. First-year applicants should take the School Report form on the application to the appropriate high school office for completion. The School Report and two letters of recommendation should be returned to the Elizabethtown College Office of Admissions. A teacher should complete at least one recommendation and the other may be completed by any other adult who knows you well (i.e., coach, musical director, member of the clergy, or employer). Transfer and home-schooled applicants may submit two letters from professors/teachers or employers in place of the School Report and teacher recommendation.

Official High School Transcript. Submit your official high school transcript. It should include a cumulative GPA and rank in class, if available. Well-qualified applicants may receive final decisions upon submission of first-marking period grades, beginning in mid-November. All applicants should submit mid-year grades when available. Transfer applicants must submit a high school transcript and official transcripts from all previous college work.

Standardized Test Performance. All first-year applicants are required to submit scores from either the SAT 1 or ACT. Your official scores should be sent directly

to Elizabethtown College (SAT code #2225 and ACT code #3568). Elizabethtown does not prefer one test to the other. Transfer applicants who have graduated from high school within the past five years must also submit standardized test scores.

Writing Sample. Applicants are asked to submit an example of their writing. You may choose to submit a personal statement, a graded paper, or an essay on one of the topics suggested as a part of this application.

International applicants must also complete the following items:

1. Contact the Office of Admissions to request the International Student Visa and Financial Aid Application.
2. Submit a 250-word autobiographical personal statement discussing your choice to apply to Elizabethtown College.
3. Submit the official results of the Test of English as a Foreign Language (TOEFL).

Notification and Application Deadlines

Students are encouraged to apply as early as possible during the summer before their senior year and throughout the early fall. Well-qualified applicants are notified beginning in mid-November, and decisions continue on a rolling basis thereafter as applications become complete.

For maximum consideration, first-year students are encouraged to submit an application no later than March 1.

Because of limited and selective enrollment opportunities, applicants to the following programs are encouraged to submit an application by the suggested date:

The Hershey Foods Honors Program - January 15
Occupational Therapy - December 15
Pre-Med Primary Care - December 15
International Business - March 1

Students considering a degree in music, music therapy or music education must complete an audition and are encouraged to contact the Department of Fine and Performing Arts at 717-361-1212 to learn more about audition details. Audition forms are available online through the department's web site.

The Selection Process

Admission to Elizabethtown is competitive and selective. Objective and subjective materials will be considered. The application and supporting materials will provide members of the admissions staff with information necessary to offer admission to those students who are best-suited for Elizabethtown College. Applicants are considered for academic fit, cocurricular fit and social fit. The following list may provide some insight into what is considered in each area.

Academic Match	**Cocurricular Match**	**Social Match**
quality of curriculum	athletic ability	integrity
SAT/ACT scores	music ability	persistence
cumulative GPA	drama	seriousness of attitude
rank in class	volunteer service	appreciation for E-town
letter of recommendation	work experience	demonstrated interest in E-town
academic awards/honors	student government	work ethic

Applicants are encouraged to have supporting recommendations focus on these three areas. The personal interview is also an important component of the selection process that provides insight into each of these areas. Our goal is to select a group of students from diverse geographic and cultural backgrounds who will learn from each other and celebrate their differences as they share academic interests, talents, accomplishments, and future goals.

Personal Interviews and Campus Visitation

A personal interview with a member of the admissions staff is strongly encouraged for all prospective students. It is suggested that prospective students plan to interview prior to January 1 of their senior year. Campus interviews and personal tours are available throughout the year. Interviews typically last 45 minutes to one hour and are preceded or followed by a campus tour. Individual appointments are scheduled between 9 a.m. and 3 p.m., Monday through Friday. Please call our visit coordinator at 717-361-1400 to schedule a personal interview or campus tour.

Financial Aid and Merit Scholarships

All applicants are considered for merit scholarships during the application review. Notification of a merit scholarship accompanies the offer of admission. Students interested in need-based financial aid must complete the Free Application for Federal Student Aid (FAFSA) and the Elizabethtown Application for Financial Aid. Current W-2 forms and income tax returns are also required to complete the process for need-based financial aid. It is strongly recommended that students complete the FASFA electronically at www.fafsa.ed.gov (Elizabethtown College's Title IV code is 003262). Applicants should apply for financial aid no later that March 1. For more information on financial aid, see page 12.

For any questions about the application process, please contact the admissions office at 717-361-1400 or by email at admissions@etown.edu. Visit the admissions web site at www.etown.edu.

Advanced Placement

Elizabethtown College participates in the Advanced Placement (AP) program of the College Board. Depending upon the approval of the department concerned, the College grants advanced placement and credit to students who typically score three or better on the CEEB AP examinations. Credit through the International

Baccalaureate Program will be granted for scores of five or six or above on the higher level examinations, depending upon the department concerned.

Transfer Students

Students in good social and academic standing may apply to transfer from regionally accredited colleges, universities, or two-year institutions. The application form, a personal statement, two letters of recommendation from professors, a final high school transcript, and all post-high school transcripts for work at past and current two-year and four-year institutions are required. An interview is highly recommended.

The Office of Registration and Records evaluates transcripts to determine the number of credits (up to 64 from a two-year institution) that will transfer for Elizabethtown College credit. Students with course work in traditional academic areas of English, mathematics, natural science, and foreign language with a 2.5 GPA (mid-70% or above) are recommended for transfer acceptance. Students should plan to fulfill most course requirements for their major at Elizabethtown College.

Transfer students are accepted for both the fall and spring semesters.

Non-Degree Students

A student who is not a candidate for a degree but who wishes to enroll in one or two courses should contact the Center for Continuing Education and Distance Learning. Teacher certification information is available through the Office of Registration and Records.

Early Admission Students

Superior high school students may accelerate their higher education by beginning their college work immediately after completion of the secondary school junior year. Students who are admitted enter the College as regular first-year students; when they successfully complete their first year, they receive their high school diploma in addition to the college credits earned. This program has the cooperation and support of the Pennsylvania Department of Education.

In addition to the fundamental requirement that early admission applicants have completed their 11th year in an accredited curriculum, they must exhibit the mental ability, scholastic achievement, social maturity, and personal motivation to adjust to the academic and cocurricular programs of the College. Following enrollment, early admission students receive close academic advising by selected faculty members.

Early admission to Elizabethtown College after careful, individualized screening is based on the following:

Class rank and academic aptitude. *Students must rank in the top of their high school class and achieve a superior result in the CEEB Scholastic Aptitude Test to be considered.*

Evaluations. *Written by the student's high school principal, guidance counselor and teachers, recommendations must indicate the student's suitability for early admission.*

Parental, school, and Elizabethtown College support. *The written approval of the student's parents, high school principal, and guidance counselor is mandatory before acceptance. The selection process requires an interview with the dean of admissions and enrollment management.*

Reactivation of Admission Application

Students who have applied to the College within the past two years but did not complete the process may request, preferably in writing, that their application be re-activated by the Office of Admissions. Additional information is required.

Hershey Foods Honors Program Admission

Admission to the Hershey Foods Honors Program at Elizabethtown College is very competitive. Admission to the program is normally at the beginning of the first year. The minimum standard for admission is a combined score of at least 1200 on the SAT (with neither the verbal nor the math score below 550) or equivalent on another standardized test (i.e., TOEFL, ACT), rank approximately in the top ten percent of high school graduating class, and review by the Honors Committee acting on the recommendation of the admissions office. The application deadline for the program is January 15. Notification is guaranteed by February 15. Students interested in the Hershey Foods Honors Program are expected to have an on-campus interview with an admissions officer.

Limited sophomore admission comes upon demonstrated excellence in first-year courses, the recommendations of at least two professors, and the concurrence of the Honors Committee. Rising sophomores must apply by June 1 for consideration.

Financial Aid Information

The role of the Financial Aid Office is to assist students in finding the financial means to allow them to fully participate in the educational experience at Elizabethtown College.

All requests for applications and other information regarding financial aid should be directed to:

Financial Aid Office
One Alpha Drive
Elizabethtown College
Elizabethtown PA 17022-2298
(717) 361-1404
Email: finaid@etown.edu

The services of the Financial Aid Office are available to both enrolled and prospective students. Services include current information, budgeting assistance, and general assistance in planning and financing a college education. The Financial Aid Office is open from 8:30 a.m. to 5:00 p.m., Monday through Friday (summer hours 8:00 a.m. to 4:30 p.m.) The office is located on the first floor of Zug Memorial Hall.

Approximately 100 endowed scholarships and gifts have been made available to Elizabethtown College students through the generosity of alumni and friends. For more detailed information regarding financial aid programs at Elizabethtown College, you can obtain a copy of the "Financial Aid Handbook" from the Financial Aid Office or visit the Financial Aid web site at www.etown.edu.

Students with Disabilities

Contact the Director of Counseling Services or the Dean of Admissions and Enrollment Management for information on services. The Financial Aid Office is committed to providing equal access to all students. When visiting the office poses a problem, please phone (717) 361-1404 for assistance. Our staff will arrange to discuss all financial aid possibilities.

Federal Financial Aid Requirements:

We Have a Right to Ask

All information requested by the Financial Aid Office is authorized by law. The legal right to ask you to provide your Social Security number is based on Section 7(a)(2) of the Privacy Act of 1974 (P.L. 93-579).

All applicants for financial aid at Elizabethtown College are advised that disclosure of the Social Security number is required as a condition of participation in financial aid programs at Elizabethtown College. The applicant's Social Security number is used to identify the applicant's financial aid application and account at Elizabethtown.

The legal right to ask for all other information is based on sections of the law that authorizes the Federal PELL Grant, SEOG, FWS, Perkins, and Stafford Programs. These include sections 411, 413B, 443, 464, 425, 428, and 482 of the Higher Education Act of 1965, as amended. Any information you submit is subject to verification. If you do not supply proof when asked, you will not receive financial aid.

Referral of Fraud

Cases of suspected fraud on the part of a Title IV aid applicant involving information relevant to a student's eligibility or amount of assistance will be referred to the U.S. Department of Education. The following circumstances are indicative of possible fraud when the aid administrator can find no other legitimate reason for the discrepancy: 1) false claims of independent student status 2) false claims of

citizenship 3) use of false identities 4) forgery of signatures or certifications, and 5) false statements of income. Any referrals made to a local or state law enforcement agency will be reported each calendar year to the U.S. Department of Education, Office of Inspector General.

Viewing Your File

If you think that errors in your financial aid package stem from information in your file in the Financial Aid Office, you may review your file at any time, according to the Family Rights and Privacy Act of 1974. To see your file, call the Financial Aid Office.

The Financial Aid Office treats each student's file with sensitivity and utmost confidentiality. The financial information in your file is released only to those who have contributed to it, i.e., you and, if you are dependent, your parents. You must give written and signed permission before the College will release information from your file to a third party. Please keep copies of the tax returns you submit to the College. The College copies cannot be returned to you.

Drug-Free Campus

The unlawful possession, use or distribution of illicit drugs and alcohol by students and employees is not permitted by Elizabethtown College. The College adheres to the Drug-Free Schools and Communities Act Amendments of 1989. Elizabethtown College makes a drug education program available to all of its students, faculty, administrators, and staff. Various programming activities as well as individual counseling sessions are offered. Contact the Dean of College Life for further details.

Campus Crime Statistics

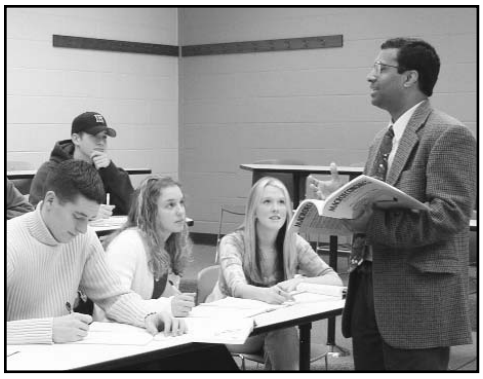
The Campus Security Office compiles campus crime statistics each year. These statistics are available to the general public upon request to the Campus Security office.

Graduation Rate Statistics

The Office of Registration and Records compiles graduation rate statistics for all of our entering classes. These statistics are available to the general public upon request to the Office of Registration and Records.

Job Placement Statistics

Counseling Services compiles job placement statistics for the most recent Elizabethtown College graduating class. These statistics are available to the general public upon request to the Director of Counseling Services.



Academic Program

Degrees Offered

The Core Program

Academic Majors/Minors

Program Variations

Study Programs

Affiliated Institution Programs

The Academic Program

Degrees Offered

Elizabethtown College grants five residence degrees: the Bachelor of Arts, the Bachelor of Music, the Bachelor of Science, the Master of the Arts, and the Master of Science. Four additional degrees are offered through the Center of Continuing Education and Distance Learning: the Bachelor of Liberal Studies, the Bachelor of Professional Studies, the Associate of Arts, and the Associate of Science.

The Core Program

The Core Program supports the academic goals expressed in the mission statement of Elizabethtown College. It has four major purposes: to provide a sense of mission and purpose to general education, to provide a foundation for successful study in liberal arts and professions, to integrate knowledge across the disciplines by engaging students in the study of the natural world and the human experience, and to develop habits of the mind that foster continued intellectual growth. The Core Program promotes truth, tenable judgements, and important ideas by assuring that a student has the opportunity to acquire significant knowledge and accepted methods of inquiry.

The Structure of the Core Program

The Core Program offers two basic categories of courses. Students engage in a common educational experience in the First Year Seminar and First Year Colloquium. In addition to this common experience, students enroll in courses in eight Areas of Understanding.

The thematic Areas of Understanding unite the Core Program into a cohesive offering, develop skills of self-education, and integrate knowledge across the disciplines. Students may petition the Academic Standing Committee to waive a particular Core Program requirement or to provide a substitution for an existing Core Program requirement.

Common Core

First Year Seminar and Colloquium (3 credit seminar and 1 credit colloquium)

Students who are entering the College for the first time, and who are pursing a Bachelor degree, must take a First Year Seminar and First Year Colloquium during their first semester.

Transfer students who have completed fewer than 24 credits of course work at another college are required to complete the First Year Seminar and First Year Colloquium.

FYS 100 First Year Seminar (3 credits)

The First Year Seminar provides an educational experience that is composed of several important components. First, it develops intellectual skills such as critical

analysis and synthesis, and communications skills such as speaking and writing. Second, it broadens definitions of learning. The student is exposed to multiple ways of acquiring information and knowledge. Third, the First Year Seminar establishes the integration of knowledge. Using the instructor's major field of study as a foundation, this course promotes connections across disciplines.

FYC 100 First Year Colloquium (1 credit)

This component of the First Year Seminar and Colloquium experience includes most of the orientation driven functions, and the attendance of and participation in the Wednesday-at-11 speaker series. There are seven lectures (or their equivalent, such as presentations, discussions, films, etc.) over the course of a semester. Each section of First Year Seminar and their instructors must attend each lecture. The First Year Colloquium will be graded Pass/No Pass.

First Year Seminar and First Year Colloquium may not be used to substitute for a major or minor course or to waive a requirement for the major or minor.

Areas of Understanding

Power of Language (2 courses)

Courses in this AU develop students' abilities to (1) articulate ideas through extensive experience in the use of logic and rhetoric, that is, to write and speak logically, persuasively and creatively as well as read carefully and critically; (2) analyze and synthesize new ideas; (3) learn how language affects thinking and conceptual development. This AU requires students to take a writing-based English-department course or advanced students who test accordingly may choose an upper-level course, coming primarily from the English, Communications and Philosophy department. Students must also taken one other course in Modern or Ancient Languages.

Based upon writing skill level, in their first year new students are required to take either:

English 100, Writing and Language (a college composition course)

or

An advanced 100-level Power of Language course.

Students placed in English 100 must successfully complete English 100 for their Power of Language. Students who receive AP or transfer credit for English 100 or enroll in English 100 cannot receive credit for English 150, Advanced Writing and Language.

Courses satisfying this requirement are:

EN 100, Writing and Language
EN 150, Advanced Writing and Language
PHIL 110, Logic and Critical Thinking
PHIL 111, Introduction to Classical Greek
FR 111/GER 111/JA 111/SP 111, Fundamentals of Language and Culture I

FR 112/GER 112/JA 112/SP 112, Fundamentals of Language and Culture II
FR 211/GER 211/JA 211/SP 211, Communication through Languageand Culture I
FR 212/GER 212/JA 212/SP 212, Communication through Language and Culture II
REL 213 Biblical Hebrew I
REL 217, Introductory Sanskrit I

Mathematics (1 course)
This AU stresses competency in quantitative reasoning and mastery of problem solving skills. Courses in Mathematical Analysis (1) develop an awareness and appreciation for the cultural significance of mathematics, its contributions to the modern world, and its power in shaping current thought; (2) present concepts that encourage a sophisticated response to arguments and positions that depend on symbolic logic and/or numbers and statistics; (3) stress ways in which numerical data and/or symbolic interpretations increasingly make accessible more profound levels of knowledge and understanding; (4) develop the ability to model real world phenomena logically and mathematically; and (5) develop problem-solving strategies.

Based upon mathematical and analytical skill level, new students are required to take either Math 011 (a college mathematics preparatory course that does not count for Core or graduation credit), or a higher-level mathematics course. Students placed in Math 011 must successfully complete Math 011 before enrolling in Mathematics Core courses.

Courses satisfying this requirement are:

CS 121, Computer Science I
MA 105, Mathematics for Liberal Studies
MA 110, College Algebra and Trigonometry
MA 117, Concepts of Calculus
MA 121, Calculus I
MA 251, Probability and Statistics
HMA 270, Honors History of Mathematics

Creative Expression (1 course)
Courses in this AU focus on and require the creation or performance in an artistic medium. In doing so, courses in Creative Expression (1) introduce students to basic concepts and vocabulary employed in the creation and analysis of like artworks and prepare them to make informed aesthetic judgments; (2) develop the awareness that creative art forms affirm our humanity by giving expression to our innermost feelings; and (3) help students to understand that an artistic medium has value.

If dance courses are selected to satisfy the Creative Expression Core requirement, two dance courses must be selected. Four credits in applied music lessons,

or two credits in applied music and two credits in qualified music ensembles may be used to fulfill this AU. The ensembles must be taken in consecutive semesters.

Courses satisfying this requirement are:

ART 105, Drawing I
ART 106, Ceramics I
ART 120, Sculpture I
DA 101, Introduction to Interpretive Movement
DA 102, Introduction to Ballet
DA 103, Introduction to Jazz Dance
DA 202, Ballet II
DA 203, Jazz Dance II
EN 101, Literature: Form and Performance
EN 180, Introduction to Creative Writing
EN 281, Writing and Analyzing the Short Story
MU 115, Music Fundamentals at the Keyboard
MU 268 – 286, Private Lessons in Applied Music
MU 361, Concert Choir
MU 363, Women's Chorus, College-Community Chorus
MU 365, Orchestra
MU 369, Concert Band
TH 165, Basic Acting

Western Cultural Heritage (1 course)

Courses in this AU introduce students to Western cultural heritage through the critical analysis of significant human endeavors. Courses in this AU teach students (1) an important aspect of Western cultural heritage; (2) the complexity of the past and its relationship to the contemporary world; (3) that knowledge can be subject to a variety of interpretations; (4) to place the subject in its historical context; and (5) critical analysis of primary and/or secondary sources.

Courses that satisfy this requirement are:

ART 155, Introduction to the History of Western Art I
ART 157, Introduction to the History of Western Art II
EN 220, Pre-1800 British Literature and Culture
EN 230, British Literature & Culture after 1800
EN 240, American Literature and Culture
HEN 243, Honors American Visions: Culture and Dialogue in the U.S.
HREL 289, Honors Communal and Utopian Societies
HI 115, Western Civilization
HI 210, Europe Since 1870
MU 105, Introduction to Western Music Literature
PHIL 105, Introduction to Philosophy
PHIL 201, History of Western Philosophy I
PHIL 202, History of Western Philosophy II

(continued)

PS 205, Western Political Heritage

Non-Western Culture Heritage (1 course)
Courses in this AU introduce students to non-Western cultural heritage through the critical analysis of significant human endeavors. Courses in this AU teach students (1) an important aspect of non-Western cultural heritage; (2) the complexity of the past and its relationship to the contemporary world; (3) that knowledge can be subject to a variety of interpretations; (4) to place the subject in its historical context; and (5) critical analysis of primary and/or secondary sources.

Courses that satisfy this requirement are:

ANTH 111, Understanding Human Cultures
MU 205, Music of Non-Western Cultures
PS 245, International Relations
PS 252, Latin American Society
REL 225, The Hebrew Bible & Ancient Near East
REL 291, Religions of South Asia
REL 292, Religions of East & Southeast Asia

Natural and Physical Sciences (2 courses – different disciplines)
Courses in the Natural and Physical Sciences (1) present major scientific concepts; (2) include appropriate background literature, data analysis, and the multiple interpretations that may result, and also include, if a laboratory course, data collection; and (3) develop understanding of the method of scientific inquiry, i.e., the relationship between hypotheses, experimentation, theories, and laws. Students must complete at least one laboratory course.

Courses that satisfy this requirement are:

ANTH 201, Human Origins
BIO 101, Biological Concepts
BIO 102, Human Heredity and Inherited Diseases
BIO 103, Living with the Environment
CH 101, General Chemistry: Practical Principles
CH 105, General Chemistry: Introduction to Molecular Structure
CH 107, Chemistry of Life: The Biochemistry of Working Out
HCH 207, Honors The Chemistry and Politics of Cancer and AIDS
ES 113, Earth in Space
ES 114, Geosystems: Landscapes, Oceans and Atmosphere
PHY 105, How Things Work
PSY 111, Introduction to Neuroscience

Social Sciences (1 course)
Courses in this AU emphasize the ways in which human behavior is shaped, ranging from the formation of the self to the interaction of nations. Courses in the Social Sciences (1) introduce major concepts, theories, and texts that interpret and

explain human behavior and interaction; (2) explore the diversity and/or integration of social worlds; (3) examine the organization and function of one or more social systems; (4) explore and analyze those influences that affect human thought, feelings, and behaviors; and (5) introduce the methods and procedures of social research.

Courses satisfying this requirement are:
HOT 302, Honors Occupational Justice in
PS 111, American National Government
PSY 105, General Psychology
SOC 101, Discovering Society
SW 160, Social Problems and Response of Social Work Institutions
WGS 105, Sex and Gender in Society

Humanities (1 course)
Courses in this AU examine values by engaging students in the decision-making process and by encouraging them to consider the implications of their choices for self and society. Courses in humanities (1) examine the nature and origin of one or more values that govern human conduct; (2) consider values in the context of fundamental human dilemmas; (3) introduce students to major works representing aesthetic, cultural, historical, religious, or philosophical approaches to the understanding of values; (4) examine how an individual's values and choices can be influenced by many factors; and (5) encourage students to make thoughtful decisions.

Courses satisfying this requirement are:
COM 252, Multicultural Communication
EN 104, Introduction to Literature
EN 245, Growing Up in America
EN 251, Multicultural Literature
HEN 231, Honors, Irony, Humor, and Despair in Modern Literature
HEN243 Honors American Visions
HI 201, History of the U.S. to 1877
HI 212, Race & Ethnicity in American History
HPH 255 (D) Honors Environmental Ethics
PH 115, Ethics
PSY 209, Psyche and Film
REL 105, Exploring Religion and Religions
REL 165, Peace, War, and Nonviolence
REL 245, Christian Social Ethics
REL 281, Religion in America
TH 105, Introduction to Theatre

Additional Requirements

1. To complete the Core Program, students must take ten courses in eight Areas of Understanding, in addition to the First Year Seminar and First Year Colloquium.
2. Students must take at least one Writing and Research Intensive course (WRI), which can be at either the 100 or 200 level.
3. Courses approved by Academic Council for Core that are also required for a particular major or minor may be used to fulfill both requirements.
4. Seniors may enroll in Core Program courses to complete Core, Major, or Minor requirements as needed. Seniors ***may not*** enroll in Core Program courses for elective purposes until all enrolled underclassmen have the opportunity to select courses during official registration periods in November and April. (In this context seniors include students of senior status and juniors who will achieve senior status at the completion of the current semester.)
5. The Core Program may be satisfied in its entirety by transfer courses (i.e., there are no residency requirements for the Core.)
6. Majors with more than 125 credits for graduation may be allowed to count two courses required of the major in lieu of two courses from the Core. Courses would have to meet the goals for the appropriate AU as stated in the Core Reform document. These exemptions must be approved by the Academic Council/Core Committee.
7. When course requirements for an academic program meet the educational objectives for a Core AU, academic departments may apply to Academic Council for a waiver of that AU for students completing the program. The course requirements supporting the waiver must be an integral part of the academic program.
8. Students are required to complete the appropriate level of mathematics, English, and/or modern/ancient language courses as determined by the College.

Old Core/New Core

The Core Program described above applies to students who enter the College in the fall of 2003 or subsequently. Students who entered prior to the fall of 2003 complete the core program known as "Old Core" or "1990 Core." Specific requirements of the Old Core are found in the College Catalog of 2002-2003 (Academic Program) or earlier. The Core Program described in this catalog is known as "New Core" or "2003 Core."

Academic Majors

The College offers degrees in the following academic majors, within which a number of options are available. The details of major requirements are included in the departmental listings.

Accounting (Business), B.S.

Actuarial Science, B.S.

Art, B.A.
Biochemistry (Chemistry and Biochemistry), B.S.
Biology, B.S.
BioTechnology (Biology), B.S.
Business Administration, B.S.
Chemistry, B.S.
Citizenship Education (Interdisciplinary), B.S.
Communications, B.A.
Computer Engineering (Physics and Engineering), B.S.
Computer Science, B.S.
Criminal Justice, B.A.
Economics (Business), B.A.
Educational Practice, M.A.
Elementary Education, B.S.
Engineering Physics (Physics and Engineering), B.A., B.S.
English, B.A.
Environmental Science (Biology), B.S.
French (Modern Languages), B.A.
General Science (Interdisciplinary), B.S.
German (Modern Languages), B.A.
Health and Occupation (Occupational Therapy), B.S.
History, B.A.
Industrial Engineering (Physics and Engineering), B.S.
Information Systems (Computer Science), B.S.
International Business, B.A.
Mathematics, B.S.
Music, B.A.
Music Education, B.M.
Music Therapy, B.M.
Occupational Therapy, M.S.
Philosophy, B.A.
Physics, B.S.
Political Philosophy and Legal Studies, B.A.
Political Science, B.A.
Pre-Forestry, B.S.
Psychology, B.A.
Religious Studies, B.A.
Secondary Education, B.A., B.S.
Social Sciences (Interdisciplinary), B.S.
Social Work, B.A.
Sociology-Anthropology, B.A.

(continued)

Spanish (Modern Languages), B.A.
Theatre, B.A.

Academic Minors

Students may elect to pursue an academic minor in addition to their major. Such a program enables the student to acquire depth of knowledge in an area of secondary interest outside the major. See program requirements for each department in the Course Descriptions section for specific requirements for minors. The College offers the following minors:

Anabaptist and Pietist Studies (Interdisciplinary)
Anthropology (Sociology and Anthropology)
Art: History (Fine and Performing Arts)
Art: Studio (Fine and Performing Arts)
Biochemistry (Chemistry and Biochemistry)
Biology
Business Administration
Chemistry
Communications
Computer Science
Economics (Business)
English
French (Modern Languages)
General Science (Interdisciplinary)
German (Modern Languages)
History
Human Services (Interdisciplinary)
International Studies (Interdisciplinary)
Information Systems (Computer Science)
Japanese (Modern Languages)
Mathematics
Music (Fine and Performing Arts)
Peace and Conflict Studies (Interdisciplinary)
Philosophy
Physics (Physics and Engineering)
Political Science
Psychology
Religious Studies
Sociology
Spanish (Modern Languages)
Theatre (Fine and Performing Arts)
Women and Gender Studies (Interdisciplinary)

Program Variations and Options

In addition to majors and minors, Elizabethtown College offers a number of alternative learning opportunities both on and off campus. On-campus study includes special programs which emphasize individual study and close work with a member of the faculty. Off-campus opportunities include joint programs with academic institutions, clinical facilities, or study abroad.

Hershey Foods Honors Program

The Hershey Foods Honors Program of Elizabethtown College, established in 1999, reflects the College's commitment to providing hand-crafted learning opportunities for its students. In the case of the Honors Program, the focus of this hand-crafting is on students with excellent academic records, superior academic abilities, intellectual promise, and demonstrated initiative. Consistent with the mission of the College, the Honors Program seeks to promote high standards of scholarship and leadership among those students selected for the program. Class size is deliberately kept small; no more than 15 students are enrolled in each course.

The opportunity to work closely with faculty mentors from the first year to the senior year is an explicit goal of everyone associated with the program. In order to foster even greater involvement between faculty scholars and honors students, co-curricular activities are planned on a regular basis. Events such as field trips to nearby cultural sites (Gettysburg, Philadelphia, and Washington) are routine. In addition, international travel is both encouraged and facilitated. Semester-long study abroad opportunities are expected, but there are also opportunities for students to visit a foreign country in an annual inter-session trip (e.g., Austria, China, Costa Rica, Ecuador, England, Iceland, and Ireland).

To facilitate such experiences, the Hershey Foods Honors Program provides each qualified student with a discretionary fund that can be used in support of these trips or to put to such other uses as book and software purchases. In order to help foster a deeper sense of community, an honors office, a reserved lounge, and access to state-of-the-art computer labs are located in the Honors Center (Wenger building) as integral parts of the program's facilities.

Participation Requirements

Students entering the Hershey Foods Honors Program in their first academic year take a two-course sequence of an Honors First Year seminar and an Honors Interdisciplinary Core Course focusing primarily on critical thinking and foundational skills. In the sophomore/junior years, two additional honors sections of courses within the College's Core Program (or courses from a list of departmental offerings) are taken. In the junior/senior year a capstone thesis requirement must be completed as well as the Honors Leadership Course. A total of 24 credits must be acquired in honors courses in order to fulfill the requirements and graduate as a recognized Hershey Foods Honor Scholar. In order to remain in good standing within the program, students must maintain a grade point average of 3.5 overall.

Admissions Process

Admission to the Hershey Foods Honors Program is typically at the beginning of the first academic year, although a small number of sophomores may be admitted. Sophomore admission comes upon demonstrated excellence in first year courses, the recommendations of at least two professors, and the concurrence of the Honors Committee. For first year students, the minimum standard for admission is a combined score of at least 1200 on the SATs (with neither the verbal nor the math score below 550), rank in the top ten percent of one's high school graduating class, and review by the Honors Committee acting on the recommendation of the Admissions Office. The date for first year applications to the Hershey Foods Honors Program is January 15. Rising sophomores must apply by June 1 for consideration.

For further information, contact the Director of the Hershey Foods Honors Program.

Study Variations

Elizabethtown College recognizes the advantage and need of education and study outside the traditional classroom, and offers several different opportunities.

Independent Study

Independent Study is a way for students to pursue individual investigation and/or reading in an area of special interest, or to advance competencies in the major/minor area. Independent Study may not be a course which is offered in the College Catalog. It is not used simply to assemble credits for graduation or to replace a course listed in the curriculum. Independent Study may not be used toward Core Program requirements.

Independent Study is available to students with junior or senior status and with a minimum grade point average of 2.0. Students pursuing Independent Study can expect to do extensive research, reading, writing, and/or creative work resulting in a major paper, presentation, work of art, or other project agreed upon by the supervising faculty member and the student.

The work is initiated by the student and progresses largely unsupervised. Independent Studies are usually registered for 1-3 credits per study. Normally, a student may carry only one Independent Study at a time or two Independent Studies at the discretion of the Independent Study Committee.

Independent Study is not tied to the academic calendar (a project may be started or finished at any point). **The project must be submitted to the Independent Study Committee prior to the Registration Day for the semester during which the Independent Study will begin.** Following approval of the Independent Study Committee, the student must officially register the project with the Office of Registration and Records during the registration period for the semester during which it will be completed. Forms are available in the Office of Registration and Records. Any requests for exceptions to the policy must be made to the Academic Standing Committee.

Directed Study

In contrast to independent study of a special topic, Directed Study is undertaken for a regular course in the curriculum which is not being offered in a given semester. This method of study should be used by the student who needs rather frequent conferences with the professor.

An additional surcharge is assessed for the full-time student who registers for Directed Study. Part-time students granted permission to register for a Directed Study course pay the same surcharge. Full-time undergraduate students whose course load exceeds 18 hours as a result of the Directed Study registration are charged the current part-time rate for tuition for those hours in excess of 18, plus the surcharge for all Directed Study credits. **Note: Students must register for Directed Studies prior to beginning course work.** Registration forms are available in the Office of Registration and Records.

Tutorials

Tutorials are available where remedial work is necessary for the student to profit from a course in the curriculum. A tutorial involves more frequent meetings between professor and student than either Independent Study or Directed Study. It is the responsibility of the student to locate a professor who is willing to enter into the tutorial agreement. Generally a faculty member will not teach more than one tutorial per semester. Any student who enters into a tutorial agreement is responsible for the regular tuition and a surcharge. **Note: Students must register for Tutorials prior to beginning course work.** Registration forms are available in the Office of Registration and Records.

International Study Programs

Students interested in globalization and who wish to pursue their interests internationally or on campus should begin their planning process with the Office of International Programs, located in Alpha Hall. Students can consult with the Dean of International Programs about studying abroad in programs affiliated with Elizabethtown College or independent programs.

Students interested in study abroad should begin their pursuit in the Office of International Programs and confer with their major and minor advisors. Credits earned abroad may, upon approval prior to taking, transfer toward the degree at Elizabethtown. Students' courses are approved by the Office of Registration and Records prior to departure.

Study Abroad Through BCA Program

The six colleges associated with the Church of the Brethren cooperate in the Brethren Colleges Abroad (BCA) study abroad consortium. The BCA consortium provides students the opportunity to study in another country for a semester, a full academic year, or a summer term. Students may select to attend designated universities in: Australia, Belgium, China, Ecuador, England, France, Germany, Greece, Hungary, India, Ireland, Japan, Mexico, New Zealand, Spain, and Wales.

More than 5,000 students have participated in the BCA program since its inception in 1962. BCA serves students from Church of the Brethren colleges and more than 100 other domestic and international colleges. Typically, about 300 American students take advantage of BCA every year.

Language-Intensive Programs. Students pursuing a major in modern languages or international business are required to study abroad for at least one semester. For those required to pursue a language-intensive location, the following programs are foreign language intensive: Universidad San Francisco de Quito, Quito, Ecuador; University of Strasbourg, Strasbourg, France; University of Nancy, Nancy, France; Phillips-University, Marburg, Germany; University of Vera Cruzana, Xalapa, Mexico; and University of Barcelona, Barcelona, Spain. Students participating in these programs must receive intensive language instruction prior to their study abroad experience at these locations.

English-Speaking Programs. Several programs are available where proficiency with a second language is not a requirement. Programs of this nature exist at: Macquarie University, Sydney, Australia; Vesalius College of the Free University of Brussels, Brussels, Belgium; Dalian Institute of Foreign Languages, Dalian, China; University of Pinar del Rio, Pinar del Rio, Cuba; University of Gloucestershire, Cheltenham, England; University of LaVerne Athens Campus, Athens, Greece; Institute for Social and European Studies at Berzsenyi Daniel College, Szombathely, Hungary; Cochin University of Science and Technology, Cochin, India; Letterkenny Institute of Technology, Letterkenny, Ireland (sister city to Elizabethtown); Hokusei Gakuen University, Sapporo, Japan; University of Otago, Dunedin, New Zealand; and University of Wales, Aberystwyth, Wales.

To qualify for the BCA program, the student should have a 3.0 grade point average. Students bound for Germany must have completed the equivalent of German 212 and have approximately a B average. Although most students bound for France or Spain must also have completed the equivalent of French 212 or Spanish 212, outstanding students who have completed French 211 or Spanish 211 will be accepted. Other qualifications include seriousness of purpose, good character, demonstrated potential for social adjustment, and a basic understanding of the United States and the host country.

Study Abroad through Herstmonceux Castle, England

Elizabethtown College has an agreement of affiliation with the Queens University (Canada) International Study Centre at Herstmonceux Castle in East Sussex, England. The Castle, one of England's most significant and beautiful brick buildings, was originally constructed during the 1440s. It is located on more than 500 acres of land in the southeast corner of England, only 80 minutes from London.

Students enrolled are exposed to the European experience for one or two semesters while studying in English and receiving credits compatible with the Elizabethtown curriculum. Most courses taught at Herstmonceux focus on international business and European studies, and cover such areas as art, commerce, geography, history, politics, law, languages, and literature.

Study Abroad through Nihon University, Japan

Elizabethtown College has an agreement of affiliation and student exchange with Nihon University, Japan. Each year, four qualified students are invited to participate in the Intensive Japanese Language Program (IJLP) during the spring semester.

Students enrolled in the program will undergo intensive Japanese language instruction and will study Japanese culture and history at Nihon University, Japan's largest private university.

For more information concerning the application procedure and program details, students should contact the Dean of International Programs.

Study Abroad with Professors

Often professors at Elizabethtown College will organize study abroad trips, which count toward specific credit (e.g., fall semester in Denmark, May term in China, England, Ireland, or Spring Break in Costa Rica). To learn more about these study abroad opportunities, contact the Dean of International Programs.

Affiliated Institution Programs

In these programs, students study at the College and at affiliated academic institutions or clinical facilities. Five major programs are offered with other academic institutions: pre-forestry with Duke University; pre-engineering with Penn State University; biology health professions and pre-allied health with Thomas Jefferson University; and the Washington Semester and World Capitals program with American University.

In the Pre-forestry major, the student spends three years at the College and an additional year in professional studies at Duke University, after which the College grants the bachelor of science degree; a second year at Duke leads to a master's degree in forestry or environmental management from Duke University. For further details, see the Interdisciplinary section of this catalog.

Pre-engineering is a 3+3 program, normally with Penn State University. After completing three years at Elizabethtown College, the student transfers, completes three years of study in an engineering major, and receives a bachelor of arts degree and a bachelor of science degree. For further details, see the description in the Department of Physics and Engineering listing.

The Biology Health Professions major is a 3+2 program with Thomas Jefferson University and other selected colleges and universities which grant degrees in the allied health sciences. The student spends three years at the College as a biology-allied health major. Upon the transfer of up to 29 credits from the upper level institution, a bachelor of science degree is awarded by Elizabethtown College. Completion of the remainder of the professional program results in the awarding of a bachelor of science degree from Thomas Jefferson University or another university.

In the Pre-allied Health programs, the student spends three years at the College and an additional three years at an affiliated institution. For further information, see the description in the Department of Biology listing.

Through an affiliation with American University, Elizabethtown College offers the Washington Semester Program, which provides an opportunity to study in Washington, D.C. and take advantage of the resources of the nation's capital. Students in the program work with the policy-makers and business professionals who play a vital role in American government and culture. Full semester credit is earned by studying in one of 11 areas: American politics, international politics, peace and conflict resolution, economic policy, journalism, justice, international business and trade, international environment/development, transforming communities, women and public policy, and the arts. Students interested in the program should contact Dr. Fletcher McClellan in the Department of Political Science. Students participating in the program must acquire off-campus course approvals from the Office of Registration and Records.

The College also offers a number of majors in which work at affiliated clinical facilities constitutes an important part of the student's education. In music therapy, occupational therapy, social work, and clinical laboratory sciences, students combine work at the College with first-hand experience in hospitals, clinics, social work, and therapy programs. For detailed descriptions, see the listings under the departments of Fine and Performing Arts, Chemistry and Biochemistry, Occupational Therapy, and Social Work.

Internships

Elizabethtown College offers students the opportunity to use what they learn in the classroom in real-world settings through internships. Some academic departments offer internships for credit as part of approved academic programs. Other types of internships may be initiated by the individual student or be offered by other educational institutions, agencies, business, or organizations. Academic credit or recognition for internships will be granted only with the prior approval of the appropriate faculty member and administrative officer.

Elizabethtown students have participated in internships at companies and organizations including: ALCOA, Coopers & Lybrand LLP, Electronic Data Systems (EDS), Johns Hopkins Hospital of Baltimore, Mars Inc., Mack Trucks, NFL Films, the Pennsylvania Department of Transportation, the Pennsylvania Attorney General's office, the Sierra Club, and WITF-TV, the Harrisburg PBS affiliate.

Copies of College published guidelines for such internships are available from the department chair or Office of Registration and Records.

Still Searching for a Major?

Many students arrive at Elizabethtown without a decided major course of study. Most college first-year students will change their minds — at least once — on their way to a baccalaureate degree, even those who think that they know exactly what they want to be and to do. The College encourages students to experience a variety of disciplines, to work closely with professors, and to seek out advice from advisors.

First-year students are assigned an advisor who assists with concerns related to the transition from high school to college. Students are encouraged to establish good working relationships with their advisors. Advisors work closely with students during the pre-registration period in making course selection and career planning decisions.

An upperclass student who is undecided about his/her field of study is assigned an advisor from the Counseling Services staff. All other upperclass students are assigned advisors in their chosen academic discipline. For most majors, students have until the end of the sophomore year to declare a major.

Center for Student Success

The Center for Student Success is a comprehensive academic support services center. It is comprised of distinct, yet integrated, service areas: Academic Advising, Career Services, Disability Services, and Learning Services. The Center for Student Success is located on the second floor of the Baugher Student Center (rooms 212-239) and is open to all Elizabethtown College students. More information regarding Academic Advising, Career Services, Disability Services, and Learning Services is available in the College Life portion of the Catalog.

Service-Learning and Civic Engagement Programs

Elizabethtown College has initiated a pilot program, the Center for Civic Engagement: Service-Learning and Civic Engagement Programs, to help coordinate, support and affirm the College's commitment to "Educate for Service." In addition to curricular programs, the Center provides assistance to students interested in volunteer placements and to faculty who wish to integrate service-learning into their coursework. Opportunities for service-learning and volunteering occur locally (both rural and urban), nationally, and globally.

The Young Center

Named after Galen S. and Jessie B. Young, the Young Center for Anabaptist and Pietist Studies is an internationally recognized scholarly research institute. Founded in 1986 under the direction of the late distinguished scholar John A. Hostetler, the Young Center fosters original research about the history and culture of Anabaptist and Pietist movements, the theological traditions out of which the Church of the Brethren developed. Through its Fellows program, the Center supports junior and senior scholars, as well as graduate students, on leave from other institutions. Fellows spend a summer, semester, or entire year on campus working on research topics under Center auspices. Center staff and visiting fellows regularly teach in the College's Department of Religious Studies, offer occasional lectures, seminars, or workshops, and give direction to undergraduate research projects.

The Center also sponsors field trips, discussion groups, musical and dramatic productions, and art exhibits that interpret and provide accurate information about the life and thought of contemporary Anabaptist and Pietist churches. A

highlight of the year is the annual Young Center banquet and the Durnbaugh Lectures. International summer conferences on an announced theme are sponsored biannually.

Young Center facilities, including staff and fellow offices, a reading room, exhibit areas, and seminar room, adjoin the Bucher Meetinghouse. Overlooking Lake Placida on the east edge of campus, the meetinghouse is named for Rufus P. Bucher, long-time College trustee and Church of the Brethren minister. The architectural style is patterned after the first Brethren meetinghouse, which was built in Germantown, Pennsylvania in 1770. In addition to Young Center activities, the Bucher Meetinghouse is used for worship services, weddings, lectures, conferences, retreats, and other campus and community events.

For information contact the director of the Young Center at 717-361-1470. More information about the Young Center is available online at www.etown.edu.

Center for Continuing Education and Distance Learning

As a distinct academic unit of Elizabethtown College empowered to meet the needs of adult learners, the Center for Continuing Education and Distance Learning offers a variety of learning programs for adults in Elizabethtown, in Harrisburg at the University Center for the Capital Region, Dixon University Center, and in Lancaster at College Square on Harrisburg Avenue.

Students interested in pursuing a program through the Center for Continuing Education and Distance Learning should call 717-361-1411 or visit www.etown.edu.

Course Descriptions

Biology
Business
Chemistry
Communications
Computer Science
Education
English
Fine & Performing Arts
History
Mathematical Sciences
Modern Languages
Occupational Therapy
Philosophy
Physical Education
Physics & Engineering
Political Science
Psychology
Religious Studies
Social Work
Sociology/Anthropology

Course Descriptions

The courses offered by the College are arranged alphabetically by departments or programs and then numerically by course code. Descriptions listed are condensed. Full course descriptions may be found on the Department documentation and course syllabus. Some departments offer majors or concentrations in more than one academic discipline (i.e. the Peace and Conflict Studies minor provided by the Department of Religious Studies is offered within the Interdisciplinary Studies program). These academic disciplines are listed alphabetically with the other departments with reference to the appropriate department and corresponding page number.

Accounting

See Department of Business, page 45

Anthropology

See Department of Sociology and Anthropology, page 193

Art

See Department of Fine and Performing Arts, page 104

Biochemistry

See Department of Chemistry and Biochemistry, page 60

Department of Biology

Professor: Dively
Associate Professors: Cavender, Laughlin, Murray *(Chair)*, Polanowski
Assistant Professors: Bridge, Coren, Wohl

Bachelor of Science

The courses of the Department of Biology provide a foundation in basic concepts and principles involving the structural, functional, and environmental aspects of the living world.

The courses provide the student with a broad and unifying understanding of nature's life forms. The department involves students in research studies with professors through senior seminars and independent study projects.

The Biology Department offers three majors:

Bachelor of Science in Biology. The curriculum prepares students for the rigors of graduate school, professional schools of medicine and allied health, and for biologically-oriented employment opportunities.

Bachelor of Science in BioTechnology. The curriculum prepares students for biological research careers utilizing the new methodologies of microbiology and/or cellular and molecular biology and provides an additional option of study for students wishing to enter graduate school. Emphasizing "problem-based learn-

ing," student internships, and integration with the Core Curriculum, the major also provides a unique learning experience, stressing ethical use of technology, lifelong learning, and development of leadership skills.

Bachelor of Science in Environmental Science. The curriculum prepares students for entry-level positions with environmental firms, industry, or government agencies which require a knowledge of environmental principles and methodology, as well as for entry into graduate environmental programs. In addition to providing the student with a solid grounding in basic principles, they are exposed to the application of those principles in an intern program.

Bachelor of Science in Biology

The **Bachelor of Science: Biological Sciences concentration** prepares the student for a biologically-related profession or for graduate school. The specific requirements are Biology 111, 112, 211, 324, 412, and one course from Biology 313 and 313L or 317, one course from Biology 321, 331 or 332, and three courses selected from the following elective categories: Cell and Molecular elective (choose 3-4 credits from: Biology 212, 310, 352-352L, or 354-354L); Organismal elective (choose 3-4 credits from: Biology 235, 318, or 347); Advanced elective (choose 3-4 credits from: Biology 222, 336, 341, 362, or 350). Other requirements are: Chemistry 105, 113, 114 or Chemistry 113, 114, 213 (if a fourth chemistry course is required, choose from 213, 214 or 242); Physics 103 or 200 (if second Physics course is required, choose from 104 or 201); and Mathematics 251, 117, or 121.

The **Bachelor of Science: Medical concentration** prepares the student for entry into professional schools of medicine and related fields. Specific major requirements are the same as those for biological sciences concentration, but additional courses are recommended. For example, all pre-veterinary medicine students should schedule courses in biochemistry and microbiology. Students interested in the premedical program should consult with Dr. James Dively and see the description in the Interdisciplinary Programs section of this catalog.

The **Bachelor of Science: Allied Health concentration** prepares the student for entry into the professional allied health science programs of Thomas Jefferson University, Widener University, and after three years other accredited pre-approved programs. Students interested in this program should see the description in the Interdisciplinary Programs section of this catalog and/or consult with Dr. Jonathon Coren.

The **Bachelor of Science: Secondary Education concentration** prepares the student for the receipt of Pennsylvania Secondary Education Certification within the framework of the biology major. This concentration provides a strong background in the biological sciences while simultaneously fulfilling the requirements for secondary teaching certification. The specific requirements are Biology 111, 112, 211, 324, and one course from Biology 321, 331, or 332, one course from Biology 313 or 317 and two courses from Biology 212, 222, 235, 311, 312, 318, 335, 336, 341, 343, 347, 352, 354, or 362. Other requirements are: Chemistry 105, 113, 114 or Chemistry 113, 114, 213; Physics 103 or 200; Mathematics 251, 117,

or 121; one course in Earth Science; one course in English; and Education 105, 150, 215, 265, 275, 295, 305, 380, 470, and 490. Students interested in this concentration should consult with Prof. Ronald Laughlin.

Bachelor of Science: General Science Secondary Education

Bachelor of Science: General Science Secondary Education is offered through the Biology Department. The curriculum prepares the student to receive secondary school general science certification. Students interested in this area should consult the detailed description in the Interdisciplinary Programs section of this catalog. Further details may be obtained from Prof. Ronald Laughlin.

A Biology minor provides course options from which a student can gain an overall view of the discipline of biology. The specific requirements are Biology 111 and 112, or two courses from Biology 101, 102, or 103 and three additional courses in biology - excluding courses with a credit value of 0, 1, or 2. The total number of credits will be 18 or 20, depending on course selection. For a minor to be conferred, a minimum grade point average of 2.0 must be maintained in minor courses. To aid in course selection and career counseling, Prof. Ronald Laughlin of the Biology Department will work with the student and the student's major advisor.

Bachelor of Science in BioTechnology

The Bachelor of Science in BioTechnology prepares students for entry-level positions in BioTechnology companies and for graduate school. The specific requirements are Biology 111, 112, 211, 212, 212L, 310, 324, 412, and 474 or 491-492. Additionally, students pursue one of the following two options: (1) *Microbiology* - Biology 235, 335 or 336, and one additional biology elective or Chemistry 323; or (2) *Cellular and Molecular Biology* - Biology 311 and 312 and one additional biology elective or Chemistry 323. Other requirements are Chemistry 105, 113, and 114 or Chemistry 113, 114, and 213; Physics 103 or 200; and Mathematics 117, 121, or 251. Students interested in this major should consult with Dr. Jane Cavender.

Bachelor of Science in Environmental Science

The universal requirements for the Environmental Science major are Biology 111, 112, 211, 313, 313L, 317, 332, and 350, Chemistry 105, 113, 114 or Chemistry 113, 114, 213; Physics 103 or 200; Mathematics 117, 121, or 251; and Biology 472, 491 or 492, or Political Science 471, or another approved internship.

Three concentrations are available through the Environmental Science major: Environmental Toxicology, Environmental Resource Management, and Environmental Policy. Each concentration requires specific courses independent of the other concentrations and in addition to the universal major requirements. The concentration requirements are as follows:

Environmental Toxicology concentration is for the student interested in investigating the chemical and biological systems which influence the movement of contaminants through biological systems and their effects in the environment.

Concentration course requirements are: Biology 324, 324L, 362 and one course from 222, 235, 321 or 347. Suggested electives are: Biology 335; Chemistry 214, 323 and 324; Political Science 366; and Business Administration 330.

Environmental Resource Management concentration is for the student interested in the application of ecological theory to the management of terrestrial and aquatic ecosystems. Concentration course requirements are: Biology 318, 347, and Earth Science 114. Suggested electives are: Biology 335; Business Administration 330; and Economics 101 or 102.

Environmental Policy concentration is for the student interested in examining and evaluating current and proposed environmental policies. Concentration course requirements are: Business Administration 330 or Economics 100; and Political Science 111 and 361. Suggested electives are Biology 335 or Economics 102. Students interested in this major should consult with Prof. Thomas Murray.

Cooperative Programs

The Biology Department also offers four cooperative programs, two of which lead to the receipt of a degree from cooperating institutions.

The **Pre-forestry program** offers a biology concentration in the five-year cooperative program in forestry or environmental management with Duke University, leading to a bachelor of science degree from Elizabethtown College and a master of forestry or master of environmental management degree from Duke University. Students interested in this program should see the description in the Interdisciplinary Programs section (page 208) of this catalog. Further information may be obtained from Prof. Ronald Laughlin.

The **Invasive Cardiovascular Technology program** leads to a Bachelor of Science degree in Biology from Elizabethtown College and a diploma in Invasive Cardiovascular Technology from the Lancaster Institute for Health Education. It prepares graduates for clinical positions in invasive cardiovascular technology. In this program, the student spends the first three years at Elizabethtown College and during the fourth year attends the Lancaster Institute for Health Education. The program follows the present three-year biology allied health curriculum that meets both the requirements of the biology major as well as the Core program of Elizabethtown College for a total of 94 credits. The fourth year meets the academic and clinical curriculum established by the Lancaster Institute for Health Education School of Invasive Cardiovascular Technology for a total of 64 credits, of which 31 will be transferred to Elizabethtown College.

Courses required at Elizabethtown College include Biology 111, 112, 211, 324, 341, and one four-credit hour biology elective; Chemistry 105, 113, and 114; or Chemistry 113, 114, and 213; Physics 103, Mathematics 251, and Computer Science 120; 45 credits of Core courses, 11 of which double count for science and mathematics requirements; and 15 credits of electives. Students interested in this major should consult with Dr. Jonathon Coren.

In the **Pre-Allied Health program**, the student spends the first two years at Elizabethtown College and transfers to Thomas Jefferson University or another degree granting institution with an accredited program for the junior and senior

years. The professional programs include areas of cyto-technology, cytogenetic technology, diagnostic imaging, diagnostic medical sonography/ultrasound, medical technology, and occupational therapy, and four years at Elizabethtown College plus three years at Thomas Jefferson University. Students should contact Dr. Coren for specific pre-allied health courses for each of the above programs. These programs differ from the biology major/allied health programs in that no degree is awarded from Elizabethtown College. Thomas Jefferson University awards the Bachelor of Science degree for each of the above programs. Students who may be interested in receiving an Elizabethtown College degree must complete the Biology major and the Elizabethtown College core requirements. For more information, see page 200. The student should contact Dr. Jonathon Coren very early to design a specific program which meets the requirements of a degree granting institution.

The **Cooperative Program in Graduate Studies with the Pennsylvania State University College of Medicine** allows selected undergraduate science majors to enroll in graduate classes at the Hershey Medical Center Campus. Criteria include successful completion of requisite undergraduate courses, possession of a grade point average of 3.5 or better, and permission of the biology internship advisor. If a student possesses a grade point average of 3.0 to 3.49, admittance is possible with the consent of the Dean of the College of Medicine and the internship advisor. This unique educational opportunity allows students to gain exposure to graduate-level classes while pursuing undergraduate studies at Elizabethtown College.

The Department of Biology participates in the College Honors in the Discipline program. For guidelines and details as to requirements, the student should consult the department chair.

101 NPS Biological Concepts
4 credits. **(Natural and Physical Sciences Core Course)** Designed for the non-biology major. An overview of the major biological concepts and ideas emphasizing their relevance to our daily lives, the course is designed to stimulate discussion of current biological issues and is intended to provide an understanding and respect for the basic mechanisms of life. *Students who have taken Biology 105 or 111 may not take this course. This course also fulfills the 100 Level Natural World Biology lecture/laboratory requirement of the 1990 Core program.*

102 NPS Human Heredity and Inherited Diseases
4 credits. **(Natural and Physical Sciences Core Course)** An overview of human heredity, providing the tools needed to make informed decisions on a variety of health-related issues with information on disease, medical technology, genetic engineering and biotechnology, and environmental factors affecting human health. As part of the laboratory, each student isolates copies of a small portion of his or her own mitochondrial DNA. Students work with international DNA databases to compare their DNA sequences to those from their classmates, from people around the world, and from ancient Neanderthal DNA. This experiment

allows students to observe evolution in a very personal way. *Students who have taken BIO 106 may not take this course; it is equivalent to Biology 106, a 100 Level Natural World Biology lecture/laboratory requirement of the 1990 Core program.*

103 NPS Living with the Environment
4 credits. **(Natural and Physical Sciences Core Course)** A lecture/laboratory course designed for non-science majors. Principles of environmental relationships and how living organisms play a role in those relationships and respond to changes in their environment are emphasized. Current problems with pollution, hazardous wastes, energy, and population growth are examined in relation to those environmental principles. *Students who have taken BIO 108 may not take this course. This course is equivalent to Biology 108, a 100 Level Natural World Biology lecture/laboratory requirement of 1990 Core program.*

111 Introduction to Biological Sciences I
4 credits. The study of the chemical and cellular basis of life, human and animal anatomy and physiology, cellular reproduction, heredity, and animal development. For biology majors and those students taking additional biology courses. Hours: lecture 3, laboratory 3. *This course also fulfills the 100 Level Natural World Biology lecture/laboratory requirement of the 1990 Core program. It may not be taken for credit after completing BIO 105 or BIO 101NPS without the permission of the instructor.* Fall semester.

112 Introduction to Biological Sciences II
4 credits. The evolution and diversity of organisms is examined by comparing representative forms of the five kingdoms and viruses. Discussion of plant structure and function and ecological principles is included. For biology majors or those taking additional biology courses. Hours: lecture 3, laboratory 3. *Prerequisites: Biology 111, or permission of the instructor. This course may not be taken for credit after completing BIO 106 or BIO 102NPS without the permission of the department chair.* Spring semester. Profs. Coren and Laughlin.

201 Human Anatomy and Physiology I
4 credits. The study of structure and function of the human integumentary, skeletal, muscular, nervous, and endocrine systems. Particular attention is given to structure and function as it relates to dysfunction and disease. Laboratory work involves dissection of a human cadaver. Enrollment limited to occupational therapy, music therapy, and allied health majors. Hours: lecture 3, laboratory 3. *Prerequisites: Biology 111, or permission of the instructor.* Fall semester. Prof. Dively.

202 Human Anatomy and Physiology II
4 credits. A continuation of Biology 201. The study of structure and function of the human circulatory, respiratory, excretory, digestive, and reproductive systems. Emphasis on these systems as they relate to homeostasis and disease. Laboratory work involves cat dissection and "hands-on" manipulation of instruments useful to the health profession student. Enrollment limited to occupational therapy,

music therapy, and allied health majors. Hours: lecture 3, laboratory 3. *Prerequisite: Biology 201.* Spring semester. Prof. Dively.

205 Human Heredity
4 credits. Review of basic genetic information providing background to understand human genetic diseases. Included are the new biotechnology discoveries and how they (positively and negatively) impact our society. Where possible, examples of applications are made. Hours: lecture 3, laboratory 2. *This course also fulfills the 200 Level Natural World Biology with laboratory requirement of the 1990 Core program.*

211 Genetics
4 credits. An integrated and comprehensive review of classical, neo-Mendelian principles of heredity and molecular biology. Laboratory work involves Drosophila crosses and basic techniques employed for molecular investigations. Hours: lecture 3, laboratory 3. *Prerequisites: Biology 111 and 112, or permission of instructor.* Fall semester. Prof. Coren.

212 Cell Biology
3 credits. Study of the cell from a molecular perspective and integrated approach. Morphological and physiological study of cells, cell mechanisms, and cell organelles are explained through understanding the interaction of biological molecules. Laboratory involves qualitative and quantitative investigations of cellular and molecular construction of enzymatic pathways through various extraction and analysis techniques. Hours: lecture 3, laboratory 3. *Prerequisite: Biology 211, or permission of the instructor.* Spring semester. Prof. Cavender.

212L Cell Biology Laboratory
1 credit. Required for the BioTechnology major. The laboratory exercises demonstrate many of the important cell biology principles covered in the lecture course. *Prerequisite: Biology 211 or permission of the instructor.* Spring semester. Prof. Cavender.

222 Immunology
3 credits. A basic course encompassing immunity, serology, immunochemistry and immunobiology. Considered are antigenic specificity, humoral and cellular effector mechanisms, hypersensitivities, immunogenetics, tolerance and enhancement, and tissue and tumor immunity, as well as recent methodological advances. *Prerequisite: Biology 112, or permission of instructor.* Spring semester. Prof. Polanowski.

235 General Microbiology
4 credits. A study of the morphological, physiological, and ecological characteristics of bacteria, as well as disease transmission and principles of control. A laboratory gives practice in the isolation and identification of bacteria. Hours: lecture 2, laboratory 5. *Prerequisites: Biology 112 and Chemistry 105 or 114, or permission of instructor.* Fall semester.

310 Molecular Biology
3 credits. An upper level course stressing study of current developments in molecular biology. Particular emphasis will be placed upon the theory of investigative molecular techniques. *Prerequisite: Biology 111.* Fall semester. Prof. Polanowski.

311 Biological Instrumentation and Research Methodology I: Cellular Emphasis
4 credits. A practical and theoretical examination of current techniques employed to study cellular biology. Proficiencies in experimental design, data collection, data analysis, and critical review of current literature are developed. Mammalian and plant tissue culture techniques, immunohistochemistry, ELISA, polyacrylamide and capillary electrophoresis, western analysis, and cellular apoptosis assessed by electron microscopy are emphasized. *Prerequisites: 15 credits of biology, including Biology 212, and 8 credits of chemistry.* Prof. Cavender.

312 Biological Instrumentation and Research Methodology II: Genetic Engineering Emphasis
4 credits. An in-depth, hands-on experience with the modern techniques of genetic engineering and molecular biology. Students become proficient in the techniques of cloning, agarose gel electrophoresis, PCR, and DNA sequencing. Grant writing skills are developed and the ethical implications of scientific research are explored. *Prerequisite: 15 credits of biology, including Biology 212, and 310 and 8 credits of chemistry.* Prof. Cavender.

313 General Ecology
3 credits. The relationships between plants, animals, and their environment are investigated with regard to energy flow, mineral cycling, physical and chemical parameters, population changes, and community structure. *Prerequisite: 16 credits of biology, or permission of instructor.* Fall semester. Prof. Laughlin.

313L General Ecology Laboratory
1 credit. Use of techniques and instrumentation for aquatic and terrestrial field studies, experimentation in such areas as population growth, competition, productivity, and mineral cycling. *Prerequisite or corequisite: Biology 313.* Fall semester. Prof. Laughlin.

317 Aquatic Ecology
4 credits. The study of physical, chemical, and biological relationships in aquatic ecosystems as they relate to the survival and growth of organisms, including laboratory and field experimentation using local aquatic ecosystems. *Prerequisites: 15 credits of biology, and 8 credits of chemistry.* Fall semester. Prof. Murray.

318 Marine Biology
3 credits. A study of the chemical and physical characteristics of marine ecosystems and the functional adaptations of marine organisms to those systems. Representative marine communities including rocky intertidal and coral reefs are examined in detail. The impacts of humans on marine environments are also discussed. *Prerequisites: 8 credits of Biology, and 4 credits of Chemistry.* Spring semester, alternate years. Prof. Murray.

324 General Physiology
3 credits. A functional study of vertebrate organs and organ systems. Attention focused on similarities and specialization in relation to function, with emphasis on functional adaptations to the environment. *Prerequisite: Biology 112 or permission of instructor.* Spring semester. Prof. Dively.

324L General Physiology Laboratory
1 credit. An investigation of selected physiological mechanisms, employing spectrophotometers, datagraphs, spirometers, oscilloscopes, electrocardiographs, electrophoresis, and animal surgical techniques. *Prerequisite or corequisite: Biology 324.* Spring semester. Prof. Dively.

331 Comparative Plant Morphology
4 credits. A comparative study of the plant kingdom with emphasis upon the various levels of organization, structure and the development and relationships of the major plant groups. *Hours: lecture 3, laboratory 4. Prerequisite: Biology 112.* Spring semester. Prof. Polanowski.

332 Taxonomy of Vascular Plants
4 credits. Examination of family characteristics useful in plant identification using live material and transparencies. Taxonomic principles and distribution of plants are discussed. Plant collection and some Saturday trips required. Hours: lecture 3, laboratory 4. *Prerequisite: Biology 112.* Spring semester. Prof. Laughlin.

335 Microbial Ecology and Diversity
4 credits. An intensive look at the physiology of microorganisms and how microbial metabolism plays a role in the cycling of nutrients in nature. Students are exposed to the techniques commonly used to study microorganisms in their natural environment. The concepts of using microorganisms for bioremediation will also be discussed. Hours: lecture 3, laboratory 3. *Prerequisite: Biology 235 or permission of the instructor.* Spring semester, alternate years.

336 Pathogenic Microbiology
4 credits. An intensive study of the disease-causing microorganisms of humans. The pathogenesis of and how the body defends itself against bacteria and viruses are examined. The concepts of the human immune system and its role in disease prevention and recovery is discussed. The laboratory exposes students to the tech-

niques commonly used to study microorganisms in a clinical setting. Hours: lecture 3, laboratory 2. *Prerequisite: Biology 235 or permission of the instructor.* Spring semester, alternate years.

341 Comparative Anatomy
4 credits. A comparative and embryological study of morphology of selected representatives from the phylum chordata. Laboratory work involves dissection and demonstration of organisms from major chordate groups. Hours: lecture 2, laboratory 4. *Prerequisite: Biology 112.* Fall semester. Prof. Dively.

343 Histology and Biomedical Technique
4 credits. A basic microscopic study of vertebrate tissues. The laboratory includes biomedical techniques of paraffin sectioning, staining, and slide preparation. Hours: lecture 2, laboratory 4. *Prerequisite: Biology 112.* Spring semester.

347 Invertebrate Zoology
4 credits. A study of the evolution of invertebrate animals from simple to complex forms, structural and functional similarities and differences, and the evolutionary trends necessary for an understanding of basic adaptive features. Hours: lecture 2, laboratory 4. *Prerequisite: Biology 112 or permission of the instructor.* Fall semester. Prof. Bridge.

350 Environmental Issues Seminar
1 credit. A multidisciplinary approach to current issues in environmental science. Topics of discussion include water and air quality, domestic and hazardous waste disposal, global environmental issues, environmental economics, and sustainable resource use. Students are required to write a position paper on an issue of their choice. *Prerequisite: at least junior standing.* Spring semester. Prof. Murray.

352 Developmental Biology
3 credits. A study of how differential gene expression, physical properties of cells, and signaling between cells contribute to development from a fertilized egg into a complex adult animal. Changes in development underlying evolutionary changes in animal form, and effects of pollutants and other environmental factors on development, are discussed. *May be taken with or without developmental biology lab. Prerequisite: Biology 211.* Spring semester. Prof. Bridge.

352L Developmental Biology Laboratory
1 credit. Techniques such as grafting tissue and staining with vital dyes and antibodies are used. Experiments address questions about cell-cell signaling, differentiation, evolution of gene families, regeneration, and effects of UV radiation and pesticides on early vertebrate development. *Prerequisite or corequisite: Biology 352.* Spring semester. Prof. Bridge.

354 Molecular Evolution
3 credits. Basic principles of evolutionary biology, together with their application to explain organismal properties at all levels, from DNA to behavior are covered, with emphasis on DNA and protein evolution. *Prerequisite: Biology 211.* Spring semester, alternate years. Prof. Bridge.

354L Molecular Evolution Laboratory
1 credit. Experience with a variety of techniques important in the study of evolution at the molecular level, including extraction of DNA and RNA from diverse tissue types, PCR, cloning, and use of sequence databases and DNA analysis programs to identify cloned sequence. *Prerequisite: Biology 211.* Spring semester, alternate years. Prof. Bridge.

362 Ecotoxicology
4 credits. The study of the fate and transport of toxic compounds in the environment. The toxicity of individual pollutants at the organismal, species, population, and community levels is discussed. Risk assessment and risk management in ecological systems are also discussed. The course includes laboratory experimentation. *Prerequisites: 15 credits of biology, and 8 credits of chemistry.* Spring semester, alternate years. Prof. Murray.

370-379 Special Topics in Biology
Variable credit. Courses of a specialized nature reflecting the interests of the student and the instructor. Courses offered on a random basis.

412 Seminar in Biology
1 credit. Students read and discuss articles in biological literature dealing with major advances in biology. A paper and oral presentation on a subject related to the discussion is required. *Required of biology majors. Prerequisite: senior standing.* Spring semester.

472 Internship in Environmental Science
3 credits. Work experience in an environmental science-related field including environmental consulting and engineering firms, analytical laboratories, and state agencies. Graded Pass/No Pass. *Prerequisites: At least junior standing, permission of the instructor.* Prof. Murray.

474 Internship in the Biological Sciences
3 credits. Work experience in a biological science related field including biotechnology, pharmaceuticals, health care, analytical laboratories, and state agencies. Graded Pass/No Pass. *Prerequisites: At least junior standing, permission of the instructor.* Prof. Cavender.

491-492 Research in Biology
3 credits. An original research investigation planned and performed by students in consultation with faculty. A paper is written and major findings are presented orally to faculty and peers. Students must obtain permission of the professor whom they wish to serve as their research mentor before enrolling in the course. Only one course may be used as a Biology elective. Required for honors in biology. Graded Pass/No Pass. *Prerequisite: junior standing or permission of the instructor.*

Education 305 Practicum in Secondary Education: Science
4 credits. Teaching science in secondary schools. *Prerequisite: Education 230.* Fall semester, alternate years.

Biology/Allied Health

See Interdisciplinary Programs, page 200.

Department of Business

Professor: Varamini
Associate Professors: Burmeister, Chung, Gifford (*Bitting Chair of Accounting*), Hoppie, Paul (*Associate Chair*), Trostle
Assistant Professors: Melvin (*Chair*), Sandu, Tang, Williams
Lodge Distinguished Professor of Business: Appointed annually
Lecturers: Gehman, Molony
Visiting Professor: Adams

Bachelor of Arts, Bachelor of Science

Vision: Provide a scholarly environment for the rigorous exploration of modern business practices.

Mission Statement: Nurture the intellect through the integration of theoretical business concepts and practical decision-making skills.

Objectives: Provide comprehensive academic preparation in commerce by developing essential skills in critical thinking, problem solving, and communication.

Elizabethtown College, through its Department of Business, is nationally accredited by the Association of Collegiate Business Schools and Programs (ACBSP). This requires the Department of Business to adhere to strict standards of excellence and undergo peer review of our standards. Elizabethtown College's Center for Continuing Education and Distance Learning (CCEDL) is not accredited by ACBSP. **Therefore, students enrolled in majors/minors offered by the Department of Business are not permitted to count courses taken through CCEDL toward their degree requirements.**

Outcomes Assessment

The Department uses feedback from a variety of measures, including: surveys of alumni, the Major Field Achievement Test in business, and surveys of business executives to gauge the effectiveness of its academic programs and institute curricular improvements. Data from these instruments is gleaned, compiled and reviewed by the Department's Committee on Outcomes Assessment Review. Based upon this review, the Committee submits an annual report to the Department's faculty to recommend any changes to the curriculum or program based on their analysis of the various measures.

The Department of Business provides comprehensive programs of professional education for students who wish to achieve responsible positions in private and public business organizations. The department's goal is to provide students with an understanding of economic and business systems within the global economy and a multicultural society, and to provide them with a foundation for pursuing a career, graduate study, and continuing self-education in a business area.

Paths to Graduate Studies in Business

The Department of Business has articulation agreements with the College of Business and Economics at Lehigh University, the Sellinger School of Business & Management at Loyola College (MD), the Rutgers University (NJ) Graduate School of Management, and the School of Business Administration at Penn State Harrisburg to facilitate students moving from an Elizabethtown undergraduate degree into graduate programs offering M.B.A. and M.S.I.S. degrees. Students may be considered for early admission at the end of their junior year at Elizabethtown; however, matriculation in the programs is contingent upon successful completion of the bachelor's degree at Elizabethtown. Through careful planning, students may be able to complete both the bachelor's and master's degrees in five years. Further information and details are available from the department chair.

Majors Offered

Bachelor of Science in Accounting

Preparation for entrance into the profession of accounting (public, private, or government) requires a basic business core in addition to a proficiency in accounting. Because of the increased emphasis upon critical thinking, communication, technology, and quantitative techniques by business, students are urged to elect additional courses that strengthen these skills areas.

150-Hour Accounting Program. The American Institute of CPAs (AICPA) and a number of states have enacted legislation requiring individuals who sit for the CPA exam to complete 150 credits of course work. The Department of Business has responded to this requirement by negotiating articulation agreements with Lehigh University, Loyola College (MD), Penn State Harrisburg, and Rutgers University (NJ) (see above). For students who wish to satisfy the 150-hour requirement through a fifth year at Elizabethtown College, the Department of

Business has a fifth-year diploma program. Under the program, students may elect to attend Elizabethtown for a fifth year after graduating with a B.S. degree. During the fifth year, they may take up to eight courses (or nine if they graduate with 125 credits) to satisfy the educational requirements of their respective states. Courses will be selected from existing courses at the College. Specific course selections will vary depending upon the educational requirements of each state. At the completion of the 150 credits of study, students will receive a fifth-year diploma. For additional information contact Prof. Sean Melvin.

Students interested in **international accounting** can choose one of three options: (1) accounting major with a modern language minor; (2) accounting major with an international studies minor; or (3) international business major with an accounting concentration. A choice of option would not have to be made until the end of the sophomore year. However, students should declare their interest in the international accounting program in their freshman year in order to fulfill the common requirements for all three options: language, international studies, and business courses. Students interested in the international accounting program should refer to the department advising sheets and consult with Prof. Richard Gifford, director of the accounting program.

An **Accounting major** requires Accounting 205, 206, 301, 310, 405; Business Administration 215, 248, 265, 325, 331, 495; Economics 101, 102; and Mathematics 251.

Bachelor of Science in International Business

Preparation for a career in international business requires an understanding of foreign cultures, language and cross-cultural interaction skills, a broad background in business, an internship, and skills in a functional area of business. An **International Business major** must complete the requirements for the four components of the program: modern languages, foreign culture and international interaction, business studies, and experiential learning. Furthermore, a student must choose one of the following concentrations: **accounting**, **business information systems**, **finance, management**, or **marketing**.

Requirements for the modern language component include 211, 212 of a modern language and a minimum rating of Intermediate High/1+ on the ACTFL scale for French, German, or Spanish. Those pursuing the Japanese language must achieve the designated level of the Japanese Foundation Proficiency Test.

Requirements for the foreign culture and international interaction component include Political Science 245; Economics 101, and 307or 311; Business Administration 197, 257, 258, 337; and one other foreign culture and international interaction course, normally taken abroad.

Requirements for the business studies component include: Accounting 101, 270; Computer Science 120 (students concentrating in Business Information Systems must take Computer Science 121 instead of 120); Economics 102; Mathematics 251; Business Administration 215, 248, 265, 325, 497; an internship; and 12 credits in one of the following concentrations.

For an **Accounting Concentration**, a student must take Accounting 205, 206, and 307. For a **Business Information Systems Concentration**, a student must take Computer Science 121 instead of Computer Science 120 under the business studies component; Computer Science 122, 205, and 209 or 341. For a **Finance Concentration**, a student must take Business Administration 327, 424, and one other finance course. A **Management Concentration** requires Business Administration 367, 347 or 467, and one other management course. A **Marketing Concentration** requires Business Administration 317, 319, and one other marketing course.

To meet requirements of the experiential learning component, a student must have an internship and must also study abroad in a foreign country where the target language is spoken. The study abroad requirement is at least one semester with our Brethren Colleges Abroad program or with another program approved by the Department of Business and the Office of Registration and Records.

Admission to the International Business major is limited to 25 first-year students each year in order to maintain the quality of the program and to provide the necessary assistance for each student. Transfers are permitted from within the College or from other institutions on a space-available basis.

First-Year International Business majors are selected by the Department of Business faculty. The selection process includes consideration of: (a) academic accomplishments; (b) motivation and aptitude; (c) preparation for international business study; (d) leadership and communications; and (e) interest in international business.

A prospective student must submit an application with all supporting documentation (including an essay demonstrating interest in international business) to the Admissions Office before March 15. Applications received after March 15 will only be considered on a space available basis and will not be eligible for Department of Business scholarships.

Foreign students who are majoring in International Business should consult with the director of the program during their first year to discuss their specific course requirements.

Admission to the International Business program does not imply that a student is guaranteed completion of the entire course of study. Generally, a student needs a 3.0 grade point average to qualify for a study abroad program which is a requirement for graduation in this major. For further information, contact Prof. Hossein Varamini, program director.

Bachelor of Science in Business Administration

Preparation to become a business leader requires a broad background in business, a global perspective, a knowledge of the behavioral and social sciences, and the ability to use quantitative techniques in solving problems. The business core, the Core Program, and specific quantitative requirements provide this background. A student will gain further understanding of specific areas of business by concentrating in one of six areas: **Accounting, Business Information Systems,**

Economics, Finance, Management, or Marketing. A student may also select a secondary area of concentration in communications or international business.

Business administration students may also major in forestry and environmental management. Students interested in this major should read the detailed description in the Interdisciplinary section of this catalog.

A **Business Administration major** requires: Accounting 101, 270; Business Administration 101, 155, 215, 248, 265, 325, 330, 495; Computer Science 120; Economics 101, 102; and Mathematics 251. A student must also choose one of the concentrations described below; 12 credits beyond those listed above must be taken in the concentration area (eight of those 12 credits must be taken on the Elizabethtown College campus.). A student may also elect a secondary concentration.

For an **Accounting concentration**, a student must take Accounting 205, 206, and one other accounting course. A **Business Information Systems concentration** requires Computer Science 121, 205 or 122, and 209 or 341. An **Economics concentration** requires Economics 301, 302, and one other economics course. A **Finance concentration** requires Business Administration 424, 425, and one other finance course. The **Management concentration** requires Business Administration 365, 499, and one other management course. A **Marketing concentration** requires Business Administration 319, 416, and one other marketing course.

A **secondary concentration in international business** requires competency in a modern language at the 112 level; Anthropology 111; Political Science 245; Economics 307 or 311; and two other business courses. A **secondary concentration in communications** requires Communications 105, English 185, and three other courses listed on the departmental advising sheet.

Bachelor of Arts in Economics

Preparation for a career in economics requires a broad background in basic economic theory and an in-depth study of the quantitative tools important to the economist. In light of the emphasis on the quantitative approach to economic theory, students are advised to select courses in mathematics and computer science beyond those specifically required in the economics curriculum.

Economics is one of the options in the Citizenship Education major, through which a student may receive certification to teach in secondary schools. Students with interests in this area should read the detailed descriptions in the Interdisciplinary Programs section of this catalog.

An **Economics major** requires: Economics 101, 102, 301, 302, 309, and three additional courses in economics; Computer Science 120; Mathematics 117 or 121, 251, and 252.

Minors

A student with an **Economics minor** must complete 20 hours of course work: Economics 101, 102, 301, 302, and one additional economics course.

A student with a **Business Administration minor** must complete 24 credits of course work: Accounting 101; Economics 101; Business Administration 265 and 330; and two other courses offered in the Department of Business.

For either minor to be conferred, a minimum grade point average of 2.0 must be maintained in minor courses.

Students interested in business and technology are advised to read the description of the industrial engineering major offered by the Department of Physics and Engineering.

Scholars within the Department of Business

The Department of Business participates in the College Honors in the Discipline program. It is a significant opportunity for seniors who have excelled in the curriculum to perform research resulting in publication in the Proceedings from the Annual Student Conference in Business and Economics at Elizabethtown College. Invitations for the program are sent in April of each year.

Accounting

101 Introduction to Accounting

4 credits. An introduction to the basic accounting methods and principles used in preparing financial statements for external reporting, accompanied by an application project that will incorporate interpretive and analytical techniques. Profs. Gehman, Molony

205 Intermediate Accounting I

4 credits. A study of generally accepted accounting principles and their application to asset accounting in the corporate financial reporting environment. Beginning with a brief review of the introductory financial accounting topics including the accounting cycle and the financial statements and quickly move to more challenging and complex topics: standards and alternative procedures to account for current assets, plant and equipment, intangibles and investments; the accounting treatment of related income statement transactions; and valuation, classification, disclosure and cutoff. *Prerequisite: AC 101.* Prof. Gehman.

206 Intermediate Accounting II

4 credits. A continuation of AC 205, the understanding of many concepts covered in the introductory course are expanded with a more in depth examination of related concepts: liabilities and stockholder's equity sections of the balance sheet with detailed discussion of how to account for bonds payable, long-term notes, employee pensions, and benefits and the issuance of stock. Calculation of earnings per share, how to correct errors in the financial statements, preparation of the statement of cash flows and deferred income taxes are also discussed. *Prerequisite: AC 205.* Prof. Gehman.

270 Cost Management Accounting

4 credits. An understanding of how costs behave – cost-volume and profit analy-

sis; are collected – job costing and process costing; assigned – activity-based costing; managed – strategic-based responsibility accounting; measured – budgets and variance analysis; and used in decision making – pricing and alternative use of capital. Multinational considerations are also included. *Prerequisite: AC 101 and junior status.* Profs. Gifford, Molony.

301 Introduction to Taxation
4 credits. Following the American Institute of CPAs (AICPA) recommended Model Tax Curriculum as revised in 1999, a broad range of tax topics and principles of federal income taxation of individuals, corporations and partnerships are introduced. Understanding various types of taxes in the US system and the basis for the Federal income tax system is emphasized. Tax concepts that relate to individual taxpayers, and identifying the similarities and differences of individual taxation items to the taxation of business entities are learned, emphasizing the role of taxation in the business decision-making process, tax law and research, and concepts application. *Prerequisites: AC 101 or permission of the instructor.* Prof. Gehman.

302 Advanced Studies in Taxation
4 credits. This course follows the American Institute of CPAs (AICPA) recommended Model Tax Curriculum as revised in 1999. Students develop advanced technical and technological skills in entity taxation, the tax effects of multijurisdictional commerce and advanced issues facing individual taxpayers, including retirement, estate/gift issues and financial planning. Advanced skills with tax research materials are developed, as is an appreciation for the work ethic and professional responsibilities. Learning to employ tax law in various financial and tax planning techniques is emphasized. *Prerequisite: AC 301.* Prof. Gehman.

307 International Accounting
4 credits. A broad overview of the accounting issues unique to global enterprises, variations in financial reporting requirements among countries and efforts to harmonize those differences, financial analysis of multinational enterprises, managerial accounting and control, transfer pricing, taxation, performance evaluation, and techniques for reporting and managing the risk of transacting business in multiple currencies are addressed. *Prerequisites: AC 206 or permission of instructor.* Prof. Gifford.

308 Accounting for Non-Profit Organizations
4 credits. The applicable principles and uses of fund accounting to include budgeting, preparation and reporting of general and special financial statements and their use in decision making, controlling and identifying general operating funds and those restricted and non-restricted special funds are discussed. An experiential project is assigned involving a real life case study, which will include evaluating performance measurement standards. *Prerequisites: AC 101 and junior status.* Profs. Gifford, Molony.

310 Accounting Information Systems
4 credits. An introduction to the components of an accounting information system and its relationship to the overall management information system. The use of information to support the planning, analysis and reporting of business activities using fully integrated inforamton systems is discussed. Students are introduced to system design and documentation including flowcharting and control procedures. All major transaction processing cycles and the effect on the accuracy of accounting information are reviewed. Students are introduced to and required to use complex microcomputer and database applications. *Prerequisite: AC 206*. Prof. Gehman.

405 Auditing
4 credits. A study of auditing theory and standards, professional ethics and auditor's legal liability, with in-depth analysis of the audit process including risk assessment, the theory and auditing of internal control systems, audit evidence, working papers, quality control, statistical sampling, implications of computer based systems to the audit process, and the preparation of audit reports. *Prerequisite: AC 310*. Prof. Gifford.

406 Advanced Accounting
4 credits. A study of the accounting theory and practice of business combinations, consolidated financial reporting according to United States GAAP, foreign currency transactions and financial statement translation, derivatives, and special accounting topics including business liquidations and reorganizations, SPE's, joint-ventures and partnerships. *Prerequisite: AC 206*. Prof. Gehman.

471 Internship in Accounting
Variable credits. Students gain work experience with either a public accounting firm, a business organization, or a governmental agency. *Prerequisites: Approval of department or accounting chair.* Prof. Gifford.

474 VITA (Volunteer Income Tax Assistance) Internship
2 credits. A hands on opportunity to apply what was learned in AC 301 by preparing income tax returns under the Volunteer Income Tax Assistance (VITA) Program of the Internal Revenue Servicein an experiential learning environment. Students interact with clients, accumulate their tax information and prepare their Federal tax returns using tax software, and their state and local income tax returns. *Prerequisites: AC 301 and permission of the instructor.* Prof. Gehman.

Business Administration

101 Business and Society
4 credits. Managers function within an environment and their actions influence a number of stakeholders who in turn influence managerial decision-making. Environmental awareness is increased by describing and analyzing seven sub-environments: stakeholder, economic, political, social, ethical, competitive, and ecolog-

ical. The course provides a contact for other courses in the program and acquaint students with the dynamics of managing in the business, public and non-profit sectors of the United States economy. Profs. Williams, Melvin.

155 Managerial Communication
2 credits. A study of the various communications techniques, incorporating the use of technology. Emphasis is on international communication, the analysis, ethics, and organization of materials for effective oral and written presentations.

197 International Business and its Environment
4 credits. An introduction to the international business environment including the political, social, economic, and cultural dimensions of foreign countries before students study abroad. Students develop their understanding of the differences between foreign cultures and their own culture and improve the interaction skills necessary to function effectively in the global community. *Prerequisite: IB majors or permission of the instructor.* Prof. Varamini.

215 Principles of Marketing
4 credits. A primary course in marketing. students learn (1) the difference between marketing and selling, (2) varying marketing strategies in varying competitive situations, (3) the principles of product, price, promotion and place, (4) contemporary examples of marketing successes and failures, (5) the myriad of terms, phrases and concepts of marketing, (6) the variability of consumer behavior, and (7) how to construct and write a marketing plan. Prof. Adams

248 Quantitative Methods/Operations Management
4 credits. Usage of quantitative methods and operations management concepts to optimize business decisions is learned. The quantitative methods covered are forecasting, decision-making, inventory management, linear programming, and the operations management concepts are project management, statistical process control, materials requirement planning, enterprise resource planning, scheduling, reliability, acceptance sampling, and learning curves. *Prerequisite: MA 251.* Prof. Stone.

257 Exporting and Importing
2 credits. Focus on the management of flow of goods and services across national borders to enhance the competitiveness of small and medium size firms, including: market research, agent selection, export financing, government regulation, transportation, insurance and documentation. *Prerequisite: International Business major or permission of the instructor.* Prof. Cervenak.

258 Global Business Negotiations
2 credits. Students acquire knowledge about effective negotiation techniques across national borders. A framework is provided to guide students in understanding the process of developing negotiation skills in business transactions and learn-

ing to close deals, create value, resolve disputes and reach lasting agreements with counterparts in other countries. *Prerequisite: International Business major or permission of the instructor.* Prof. Cervenak

265 Management and Organizational Behavior
4 credits. Critical management issues in planning, organizing, leading, and controlling within the framework of understanding why and how people interact with one another, in groups, and with the organization itself is examined, with opportunities to enhance communication and interpersonal skills through learning at multiple levels including: individual reading, study, and analysis; in-class lectures and exercises; and in small discussion groups where newly acquired knowledge can be applied to the analysis of real world scenarios. Prof. Burmeister.

290 The Emerging European Union
3 credits. An introduction to the history and social structure of European economic integration from 1927 to present by examining the problems faced by the member states, the specific role of British politics, eastern European politics in the European Union (E.U.) and European Monetary Union (E.M.U.), debates and the impact of the Union on Britain, the accession states and the United States, in terms of both its social system obstacles to integration and its European public policy. An understanding of social conflicts ingerent in the integration of multiple social systems and cultural, business, political, technological,and legal obstacles associated with economic integration of the European Union and the tenuous relationship between the Union members is emphasized. *Offered only in the Summer Study Abroad in Oxford, England Programme and the Department of Business Program in Prague.* Prof. Melvin

311 Marketing Research
4 credits. Employs scientific research methodology to solve marketing problems. Covers research design, data collection, sampling, and analysis. Stresses writing meaningful reports for managerial use. Students conduct a marketing research project, develop a written research report, and present the results. *Prerequisites: BA 215 and MA 251.* Prof. Chung.

312 Advertising Management
4 credits. A comprehensive course dealing with the development of an advertising campaign from an integrated marketing communication perspective, including: organizational strategy and objectives, advertising budgeting, creative development, and media planning. Students work with a business client to develop and execute an integrated marketing communication plan. *Prerequisite: BA 215.* Prof. Chung.

313 Retailing and E-tailing
4 credits. A study of retailing institutions including institutional location, layout,

managerial objectives and policies, consumer behavior, pricing and promotional strategies, consumer services, and trends. All retail forms are studied including bricks and mortar, catalog, and Internet. *Prerequisites: BA 215, BA 265*. Prof. Chung.

314 Sales and Sales Management
4 credits. An introduction to the principles of salesmanship as practiced in the modern business organization and an examination of the role of the sales manager in organizing and directing a sales force. Topics include: the relationship-selling process, developing and making a sales presentation, use of contact management software, and principles of sales management (including recruiting, territory allocation, client contact management, and compensation). Prof. Chung.

315 Internet Marketing
4 credits. A development of understanding the complexity of marketing goods and services over the Internet. Developing strategic business models for e-commerce, and planning and implementing an Internet-focused organization are covered. Development or revision of a web page for a business client that includes the home page and at least two child pages is required as a group project. *Prerequisite: BA 215*. Prof. Chung.

317 International Marketing
4 credits. A focus upon understanding how the practice of marketing is affected by the internationalization of enterprises. Subjects include the globalization of markets, international business ethics, and development of a marketing strategy that can transcend national boundaries. *Prerequisite: BA 215*. Prof. Chung.

319 Consumer Behavior
4 credits. Development of an understanding of the explanations, based on behavioral sciences, for consumer purchasing activities. Subjects include the consumer's role in society, group influences on consumers, and the nature of individual consumers, the nature of individual consumers as determinants of buying behavior, and consumer decision making models. Prof. Chung.

325 Corporate Finance
4 credits. An introduction to fundamental tools and concepts used in short term and long term financial decision-making. An overview of the major financial markets is provided. Financial statements, discounted cash flow analysis, bond and stock valuation models, risk and return for assets and portfolios, cost of capital, financing decisions, capital budgeting, capital structure of the firm and dividend policy are covered. *Previously Business Finance. Prerequisite: AC 101*. Profs. Varamini, Tang.

327 International Financial Management
4 credits. Development of an understanding of the international financial environments in which economic policy and business decisions are made. Specifically,

the course covers the spot and forward exchange markets, the Eurocurrency market and the international capital markets. The impact of exchange rate behavior on corporations and the foreign exchange risk management for multinational corporations is covered. *Prerequisite: BA 325*. Prof. Varamini.

330 Legal Environment of Business
4 credits. The study and evaluation of legal, ethical, and global issues as it pertains to understanding how a business organization operates in a changing socio-economic environment. Profs. Melvin, Williams.

331 Business Law I
4 credits. Legal concepts applicable to the formation and execution of contracts for the business environment are studied with examination of the evolution of contract law and the institution of uniform standards to simplify its applications across geographic boundaries. Profs. Melvin, Williams.

332 Business Law II
4 credits. The study of legal concepts that define the structure of a business organization with emphasis on how to form a legal entity and manage property right issues associated with forming organizations. Profs. Melvin, Williams.

333 Cyberlaw and E-commerce Regulation
4 credits. An examination of important substantive areas of the law vis-a-vie the cyber entrepreneur centered and e-commerce entity within the specific framework of the American legal system. Analysis of the law most important to cyber entrepreneurs and managers of e-commerce firms with in-depth coverage of e-commerce business models, intellectual property issues, electronic contracts, government regulation of the Internet emphasized. Current topics in cyber law which impact shareholders, executives, managers and employees of privately and publicly held business entities are covered. Prof. Melvin.

337 International Legal and Ethical Environment of Business
4 credits. An introduction to the study of international business law; the function and importance of public international law; the role of public and private international organizations; and public policy and ethics in setting standards and guidelines for international business. An understanding of the legal problems associated with economic integration within the European Union and North America is emphasized. Profs. Melvin, Williams.

347 Global Supply Chain Management
4 credits. An examination of the real-time integration of materials, information and value-added services required by a corporation to be successful in a dynamic and globally competitive arena. Basics of exporting, importing as well as fundamental concepts dealing with the entire process of resource acquisition and its

management for multinational corporations are covered. *Prerequisite: BA 265*. Prof. Cervenak.

365 Human Resource Management
4 credits. A unique overview of the Human Resource Management function in terms of practicality and real world application, the processes and methods used in HRM planning along with techniques for conducting job analysis, writing job descriptions, equal employment opportunity compliance, recruiting and selecting employees, orientation, training, and development, appraising employee performance, and maintaining employee discipline are examined. Varied instructional methods include lecture, small group discussion, document creation, and case study analysis. *Prerequisite: BA 265*. Prof. Burmeister.

367 International Management
4 credits. An approach to global economy through the analysis of managerial practices in international companies regardless of their sizes, focusing upon the key success factors of managing a company across national boundaries. The students' understanding of the field of international business from a managerial perspective is based on the integration of the learned concepts and tools with real world applications. *Prerequisite: BA 265*. Prof. Sandu.

380 Entrepreneurship
4 credits. An assessment and development of entrepreneurial skills, emphasizing a "hands-on" approach based on case studies on entrepreneurial ventures, writing business plans on opportunities identified by students, experiential exercises and executive speakers (entrepreneurs, investors, and consultants). In-class topics enable students to understand the entrepreneur's profile, and to acquire the knowledge and skills necessary to create, start, finance, manage, and grow a new venture. *Prerequisite: BA 265*. Prof. Sandu.

414 Organizational Marketing
4 credits. Integrating marketing theories and concepts for strategic planning and implementation. Techniques include case studies and the use of a computer simulation that allow students in small groups to simulate the running of a company with emphasis on marketing decisions. *Prerequisites: BA 215*. Prof. Chung.

416 Marketing Management
4 credits. Integrating marketing theories and concepts for strategic planning and implementation. Techniques include case studies and the use of a computer simulation that allows students in small groups to simulate the running of a company with emphasis on marketing decisions. *Prerequisites: BA 215, BA 319*. Prof. Chung.

424 Investments
4 credits. This course emphasizes the various classes of investments available to the investor, sources and uses of investment information, and security and capital

market valuation. Fundamental concepts, theories and techniques of investing in different assets are provided. Portfolio management is introduced. *Prerequisite: BA 325.* Prof. Trostle

425 Advanced Financial Management
4 credits. An advanced course in corporation/business finance in which major topic areas such as capital budgeting, working capital management, leasing, mergers, and financing are examined in-depth. Cases, readings, and problems are used to illustrate the concepts covered. *Prerequisite: BA 325.* Prof. Trostle.

466 Operations and Production Management
4 credits. A junior/senior-level course in which the student combine classroom study of operations and production management methodologies with field trips to manufacturing and service organizations. Student are given the most recent management methods for maximizing outcomes of the production and service functions at minimal cost while achieving superior levels of customer satisfaction. *Prerequisite: BA 265.* Prof. Adams.

470-4 Business Internship
Variable credit. Combined academic goals, abstract/theoretical and experience learning through an internship assist in the reflection, analysis, and integration of experiences and insights gained through internships with the academic theory, principles, concepts, and social and ethical dimensions of the discipline and subject area. This strengthens students' lifelong learning skills, professional and public speaking skills, personal and professional values and ethics, self-confidence; and clarifies personal and career goals. *Prerequisites: Jr./Sr. standing, Business or International Business Majors, permission of the instructor, and pre-approved placement. Complete at least 150 hours of internship assignment.* Prof. Varamini.

495 Business Policy and Corporate Strategy
4 credits. A comprehensive and integrative course which builds on knowledge acquired in the prior business classes, this class offers the opportunity to integrate that knowledge through a cross functional approach. The focus is understanding how companies craft and implement strategies that preserve and create sustainable competitive advantage. *Prerequisite: Senior status.* Profs. Burmeister, Sandu.

497 International Business Seminar
4 credits. As a capstone course in international business, the course is designed to provide both the theoretical perspectives and the practical applications of global business, the course integrates concepts, principles and practices from prior courses in accounting, management, finance, and marketing to prepare students for a successful career in international business. *Prerequisite: Senior International Business Majors or permission of the instructor.* Prof. Varamini.

498 Seminar in Marketing
4 credits. Synthesizes the literature in consumer behavior, quantitative methods in marketing, and policy issues. The course allows senior-level students to apply skills in a simulation context. *Prerequisite: BA 215*. Prof. Chung.

499 Seminar in Management
4 credits. Advanced study management course is topical in nature in order to provide a comprehensive examination of contemporary management issues including, but not limited to: organizational design, policy formulation, leadership, motivation, and corporate culture. *Prerequisites: BA 265, BA 365*. Prof. Burmeister.

Economics

101 Principles of Macroeconomics
4 credits. An introduction to a country's gross domestic product. Factors affecting a country's output of goods and services. Role of fiscal policy and monetary policy in dealing with inflation and unemployment. The Federal Reserve system and the goal of price stability. Causes and consequences of budget deficits. Factors affecting trade deficits and exchange rates. *Previously EC 100: Global Economics, this course fulfills the 100 level Social World requirement of the 1990 Core program.* Profs. Paul, Hoppie.

102 Principles of Microeconomics
4 credits. The basis for decision making by economic agents. Utility maximization by consumers. The demand curve. Profit maximization by firms. Diminishing returns and input choice. Optimal output and price for a firm in various market structures. Market failure. Income inequality. Comparative advantage and international trade. Profs. Hoppie, Paul.

301 Intermediate Microeconomics
4 credits. Description of the theory of the consumer and the firm. Analytical treatment of maximization of utility and profits. Resource use and allocation. Market structure. Welfare analysis. *Prerequisite: EC 102.* Profs. Hoppie and Paul.

302 Intermediate Macroeconomics
4 credits. The course describes macroeconomic theories to explain the business cycle. Factors affecting major macroeconomic variables such as gross domestic product, inflation and interest rates. Policies for attaining full employment and price stability. *Prerequisite: EC 101.* Profs. Hoppie, Paul.

305 Managerial Economics
4 credits. Application of microeconomic concepts for making business decisions. Demand estimation and forecasting. Cost factors. Nature of competition in the industry. Price and output decisions. *Prerequisite: EC 102.* Profs. Hoppie, Paul.

307 International Economics
4 credits. The basic concepts of international trade and payments. Impact of globalization. Commercial policy. Role of multilateral institutions. *Prerequisite: EC 101.* Profs. Hoppie, Paul.

309 Introduction to Mathematical Economics
4 credits. The course provides an introduction to techniques of mathematical modeling in economics and business. Linear algebra. Cramer's Rule. Comparative statics. Differential calculus. Unconstrained and constrained optimization. First order and second order conditions for an extremum. Dynamic optimization. Use of mathematical software. Several applications in microeconomics, macroeconomics, operations management and finance. *Prerequisite: MA 117.* Prof. Paul.

311 Economic Development
4 credits. Theories of international trade and economic growth. Capital flows. Migration. Role of institutions and NGOs. Policies for improving social welfare. Emphasis on developing countries. *Prerequisite: EC 101.* Profs. Hoppie, Paul.

371-379 Special Topics
Variable credit. Topics and problems of current relevance in economics.

400 Senior Project
Variable credit. Students who have been invited and accepted to participate in the Honors in the Discipline Program may register for this course in the semester in which the research or creative project is completed. Completion of this course does not assure recognition for Honors in the Discipline. See Department chair for additional information. *Prerequisite: Invitation to Honors in the Discipline Program.*

480-489 Independent Study
Variable credit. Independent study and research on a problem or topic in the field of economics. *Prerequisites: approval of the department chair and the Independent Study Committee.*

Department of Chemistry and Biochemistry

Professors: Ranck, Schaeffer
Associate Professors: Hagan, Hoffman *(Chair)*, Reeder
Assistant Professor: Bellefeuille

Bachelor of Science

Chemistry courses contribute to both the liberal arts component and the professional component of the balanced studies that Elizabethtown seeks to foster. Students may choose chemistry as a major area of study leading to a career that

requires a detailed knowledge of chemistry, as a coherent minor area of study, as an elective course or courses, or as a part of their Core program requirements.

Students majoring in chemistry typically go on to graduate studies in chemistry or biochemistry, to the study of medicine, to hospital or industrial laboratories, to secondary education, or to business positions in the chemical and pharmaceutical industry.

Professional Accreditation

The Department of Chemistry and Biochemistry is on the approved list of the American Chemical Society, Committee on Professional Training. The affiliation of Elizabethtown with five accredited hospitals is recorded with the National Accrediting Agency for Clinical Laboratory Sciences.

The Department offers two majors: one in Biochemistry and one in Chemistry with a choice of concentrations. Biochemistry and Chemistry minors are available.

Majors Offered

The **Biochemistry major** prepares students for medical school or other health professions schools, graduate study in biochemistry and related fields, or employment that requires baccalaureate education. Premedical and other health professions programs, including the Primary Care Pre-Admissions Program of the Pennsylvania State University College of Medicine, are discussed on page 203.

The Biochemistry curriculum requires Chemistry 113, 114, 213, 214, 242, 323, 324, 326, 327, 343, 344, 353, 361-2, 461-2, and four credits from among 491, 492, or 496; Biology 111, 112, 324, 324L; three additional credits of biology with emphasis on genetics and 3 credits of biology or chemistry; Mathematics 122; and Physics 200, 202.

The **Chemistry major** offers five concentrations: the **American Chemical Society Approved Professional Chemistry curriculum,** the **Clinical Laboratory Sciences curriculum,** the **Secondary Education Certification, Chemistry Management,** and **Chemical Physics curricula.**

The American Chemical Society concentration prepares the student for graduate school or for a career in industrial or government laboratories.

The A.C.S. approved curriculum requires Chemistry 113, 114, 213, 214, 242, 323, 324, 326, 343, 344, 352, 353, 361-2, 402, 421, 461-2, and four credits from among 491, 492, or 496; Biology 111 or 101; Mathematics 222; and Physics 200, 202.

There are two options within the Clinical Laboratory Sciences curriculum offered in cooperation with hospital programs accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). Most students choose the option requiring three years (96 credits) at Elizabethtown College and a 12-month period of study at an approved hospital. The degree is usually awarded in August upon the recommendation of the pathologist or program supervisor of the hospital and the clinical laboratory sciences director of Elizabethtown College.

Elizabethtown College is affiliated with Polyclinic Medical Center (Harrisburg), Monmouth Medical Center (Long Branch, N. J.), York Hospital, Lancaster General Hospital and Abington Hospital. The second option requires four years of study at Elizabethtown College followed by a clinical year of experience. The clinical year is not required for a degree from Elizabethtown College when this second option is chosen.

Upon completion of all degree requirements, a student is eligible to sit for national registry examinations. Registry results cannot be released until the degree is granted. It is the student's responsibility to keep the Office of Registration and Records informed of all personal data changes and the expected date of graduation. A diploma application card should be filed with the Office of Registration and Records in January of the year of the clinical study.

The **Clinical Laboratory Sciences** curriculum requires Chemistry 113, 114, 213, 214, 323, 324, 326, 327, 361-2; Biology 111, 112, 222, and 235, and electives to total a minimum of 16 credits; Computer Science 120 or Chemistry 353; Mathematics 121, 251; and Physics 200. For students attending Elizabethtown for three years, these required courses plus Core program and electives must total 96 credits. The clinical year includes a minimum of 29 additional credits. For those attending Elizabethtown for four years, additional requirements are Chemistry 242, 461-2, and four credits from among 491, 492, or 496; Mathematics 122; Physics 202; and two additional courses in biology or chemistry.

The **Secondary Education** curriculum prepares students for high school teaching. The secondary education curriculum requires Chemistry 113, 114, 213, 214, 242, 323, 343, 326 or 353, 361-2, and one additional chemistry course; Biology 111, 112; Mathematics 222; Physics 200, 202; and Education 105, 150, 215, 265, 275, 295, 305, 380, 470, 490. The department also participates in the general science certification program. For a detailed listing, see page 214.

The **Chemistry Management** option is preparation for sales or management positions in chemical and related industries, and chemical physics is a foundation for work at the interface between chemistry and physics. The chemistry management curriculum requires Chemistry 113, 114, 213, 214, 242, 323, 343, 326 or 353, 361-2, 461-2, and one additional chemistry course; Mathematics 222; Physics 200, 202; Accounting 107; Business Administration 215, 265, 325, 332, 369, 466; and Economics 101, 102.

The **Chemical Physics curriculum** requires Chemistry 113, 114, 213, 214, 242, 343, 344, 352, 353, 361-2, 461-2, and at least four credits from 491, 492, or 496; Mathematics 222; and Physics 200, 201, 202. Also, a minimum of three courses from the following: Chemistry 402, 421, two credits from 491, 492, or 496; Mathematics 362; or any 300-400 level physics courses.

Biochemistry and Chemistry minors prepare students to apply chemical concepts and practices in their major discipline.

A **Biochemistry minor** requires Chemistry 113, 114, 213, 214, and a minimum of four additional credits of biochemistry.

A **Chemistry minor** requires Chemistry 113, 114, 213, 214, and a minimum of four additional credits of advanced chemistry as approved by the department faculty.

Additional options may be tailored to the student's needs in consultation with the student's advisor and the department chair. Students planning much work in chemistry should consult with a departmental advisor as early as possible to plan the sequence of courses in chemistry, mathematics, physics, and biology that will be to their greatest advantage. Many upper-level chemistry courses have calculus and physics courses as prerequisites. The sequence in secondary education also requires early planning to ensure proper spacing of education courses.

The Department of Chemistry and Biochemistry participates in the College Honors in the Discipline program. For guidelines and details as to requirements, the student should consult the Department chair.

101 NPS General Chemistry: Practical Principles
4 credits. **(Natural and Physical Sciences Core Course)** An introduction the material world from a phenomenological, measurable, and observable viewpoint. Topics include elements and compounds, weight relationships, states of matter, solutions, descriptive reactivity, reaction energetics, solution equilibria, and organic and biochemical structure and nomenclature. Hours: lecture 3, laboratory 3. *This course also fulfills the 100 level Natural World Chemistry lecture/laboratory requirement of the 1990 Core program. Prerequisite: high school algebra.* Fall Semester. Prof. Schaeffer.

105 NPS General Chemistry: Introduction to Molecular Science
4 credits. **(Natural and Physical Sciences Core Course)** An introduction the material world from a conceptual, model-building viewpoint. Topics include: elements and compounds, atomic composition and electronic structure, bonding and molecular structure, physical properties, thermodynamics and reaction kinetics. Hours: lecture 3, laboratory 3. *This course also fulfills the 100 level Natural World Chemistry lecture/laboratory requirement of the 1990 Core program. Prerequisites: high school chemistry and algebra.* Spring semester. Prof. Schaeffer.

107 NPS Chemistry of Life: The Biochemistry of Working Out
4 credits. **(Natural and Physical Sciences Core Course)** Students explore dialogue between various organs and tissues in the body that contribute to providing the body with adequate energy during a workout. The importance and relevance of chemical reactions and how they are vital to the function of cells, organs, tissues, and ultimately the operation of the whole body is addressed, with particular emphasis on the practicality and application of course material in understanding how the body functions during a physical workout. Experiments include isolating molecules, such as caffeine, from various sources; and sports physiology-based (e.g., determining lactic acid threshold). Hours: lecture 3, laboratory 2. *This course also fulfills the 100 level Natural World Chemistry lecture/laboratory requirement of the 1990 Core program. Prerequisite: high school chemistry.* Spring semester. Prof. Hagan.

113 Organic Chemistry I
4 credits. The first course for students who plan to take more than one year of chemistry. Topics include formulas, stoichiometry, bonding, geometry, equilibrium, reactivity, kinetics, and instrumentation applied to carbon compounds. The importance of organic compounds across disciplines and in everyday life will be emphasized. Hours: lecture 3, laboratory 3. *This course also fulfills the 100 level Chemistry Natural World requirement of the 1990 Core program.* Fall semester. Prof. Bellefeuille.

114 Organic Chemistry II
4 credits. A continuation of Chemistry 113, emphasizing synthesis and reaction mechanisms. Hours: lecture 3, laboratory 3. *Prerequisite: Chemistry 113*. Spring semester. Prof. Bellefeuille.

116 Selected Topics in Organic Chemistry
1 credit. Current trends as well as applications of organic chemistry to everyday life are discussed. *Prerequisite or corequisite: Chemistry 114, or permission of the instructor.* Spring semester.

H207 NPS Honors The Chemistry and Politics of Cancer and AIDS - WRI
4 credits. **(Natural and Physical Sciences - Honors)** This interdisciplinary course seeks to rectify the science of two deadly diseases with the public policy that has been established around these diseases. Many of us have pre-conceived notions about how we view AIDS and cancer, but does the actual biochemical basis of these diseases correlate well with their correspoinding public policies? *This course also fulfills the 100 level Natural World Chemistry lecture-only requirement of the 1990 Core program.* Prof. Hagan

213 Analytical Chemistry I
4 credits. Foundations of quantitative analysis. Measurements and error analysis, solubility and acid-base equilibria, complex formation, and oxidation-reduction are discussed. Laboratory emphasizes classical inorganic gravimetric and volumetric methods. Hours: lecture 2, laboratory 6. *Prerequisite: Chemistry 114 or equivalent.* Fall semester. Prof. Reeder.

214 Analytical Chemistry II
4 credits. Instrumental methods of analysis. Electrochemical, spectrophotometric, and chromatographic methods are discussed. Laboratory introduces a variety of analytical instruments and associated methods including computer-based data analysis. Hours: lecture 2, laboratory 6. *Prerequisite: Chemistry 213 or equivalent.* Spring semester. Prof. Reeder.

242 Physical Inorganic Chemistry
4 credits. Thermodynamic stability and bonding in ionic and covalent inorganic substances. Inorganic reactivity in acid-base and oxidation-reduction systems. Some descriptive chemistry of main group and transition metal elements.

Laboratory acquaints students with synthetic methods in organic and inorganic chemistry and purification and identification. Hours: lecture 3, laboratory 3. *Prerequisite: Chemistry 114*. Spring semester. Prof. Schaeffer.

323 Biochemistry I
3 credits. The chemistry of living matter, treating the structures, metabolism, and functions of proteins, lipids, carbohydrates, and nucleic acids. *Prerequisites: Chemistry 213 and Biology 112 or equivalent.* Fall semester. Prof. Hagan.

324 Biochemistry II
3 credits. A continuation of Chemistry 323. *Prerequisite: Chemistry 323*. Spring semester. Prof. Hagan.

326 Techniques of Biochemistry I
2 credit. Techniques used in experimental investigations in biochemistry. Hours: laboratory 4. *Corequisite: Chemistry 323.* Fall semester. Prof. Hagan.

327 Techniques of Biochemistry II
2 credit. A continuation of Chemistry 326. Hours: Laboratory 4. Prerequisite: Chemistry 326. *Corequisite: Chemistry 324*. Spring semester. Prof. Hagan.

343 Atomic Structure (Physics 221)
3 credits. Twentieth-century developments in the structure of the atom. Topics include X-rays, radioactivity, atomic spectra, blackbody radiation, introduction to quantum theory emphasizing the extranuclear structure of the atom, elementary particles, nuclear structure, and transformations. *This course is the same as Physics 221. Prerequisites: Physics 202, Mathematics 122.* Fall semester. Prof. Hoffman.

344 Molecular Structure and Mechanics
3 credits. An extension of quantum theory to molecules and condensed states of matter. Includes principles of optical and magnetic resonance spectroscopy for molecular structure determination and statistical mechanics as a basis for chemical equilibrium and reactivity. *Prerequisite: Chemistry 343*. Spring semester. Prof. Hoffman.

352 Advanced Chemistry Laboratory I (Physics 353)
3 credits. Experimentation, data acquisition, data analysis, and technical presentations appropriate for the physical and chemical sciences. Emphasis on statistics of physical/chemical experimental data and computer methods of analysis, including electronic laboratory notebooks and computer networks. Hours: lecture 2, laboratory 6. *Prerequisites: Mathematics 121 and Physics 202.* Fall semester. Prof. Hoffman.

353 Advanced Chemistry Laboratory II
4 credits. Problems and experiments in the determination of molecular structure. Hours: lecture 1, laboratory 7. *Corequisite: Chemistry 344*. Spring semester. Prof. Hoffman.

361, 362 Chemistry Seminar I, II
1 credit. A two-semester sequence in which a student must present a minimum of one seminar and regularly attend those presented by other students. The student must enroll in both courses to receive credit which is given upon completion of 362. Hours: seminar 1 (Fall), seminar 1 (Spring). Prof. Schaeffer.

371-379 Special Topics in Chemistry
Variable credit. Study of an advanced topic, experimental or theoretical, of interest to the student. *Prerequisite: permission of the instructor and Department chair.*

402 Advanced Inorganic Chemistry
3 credits. A study of the elements and their compounds based upon atomic and molecular structure. *Prerequisite: Chemistry 344*. Fall semester. Prof. Schaeffer.

421 Advanced Organic Chemistry
3 credits. A study of organic reactions based on experimental and advanced theoretical studies. *Prerequisite: Chemistry 344*. Spring semester. Prof. Bellefeuille.

461, 462 Chemistry Seminar III, IV
1 credit. A two-semester sequence in which a student must present a minimum of one seminar and regularly attend those presented by other students. The student must enroll in both courses to receive credit which is given upon completion of 462. Hours: seminar 1 (Fall); seminar 1 (Spring). Prof. Schaeffer.

460-469 Clinical Courses in Clinical Laboratory Sciences
29 credits (minimum). Instruction during the clinical year includes the following courses. *Prerequisite: admission to the medical technology school of the cooperating hospital.*
Clinical Microbiology - Identification and clinical pathology of bacteria, fungi, viruses, and parasites. Techniques to isolate, stain, culture, and determine antimicrobial susceptibility. Instrumentation and quality control.
Clinical Chemistry - Enzymology, endocrinology, biochemistry of lipids, carbohydrates and proteins, metabolism of nitrogenous end products, physiology and metabolism of fluids and electrolytes, and toxicology as related to the body and diseases. The technical procedures include colorimetry, spectrophotometry, electrophoresis, chromatography, automation and quality control.
Clinical Hematology/Coagulation - The composition and function of blood, diseases related to blood disorders, and the role of platelets and coagulation. Manual and automated techniques of diagnostic tests for abnormalities.

Clinical Immunohematology - Blood antigens, antibodies, cross-matching, hemolytic diseases, and related diagnostic tests. An in-depth study of blood donor service and its many facets such as transfusions, medico-legal aspects, etc.
Clinical Immunology/Serology - Immune response, immunoglobulins, autoimmunity and complement, and related tests and diseases. Survey and demonstration of serological diagnostic tests.
Clinical Seminar - Other courses which are not included in the above (such as orientation, laboratory management, education, clinical microscopy) and/or are unique to the individual hospital program.

491-492 Research in Chemistry
Variable credit. An original experiment or theoretical investigation under the close supervision of a faculty member. Experimental design and a written report are required. *Prerequisite: permission of the instructor.*

496 Independent Problems in Chemistry
Variable credit. An independent experimental or theoretical investigation under the close supervision of a faculty member. Experimental design and a written report are required. *Prerequisite: permission of the instructor.*

Education 305 Practicum in Secondary Education: Science
4 credits. Teaching science in secondary schools. *Prerequisite: Education 230.*

Citizenship Education Certification

(Formerly Social Studies Certification)
See Interdisciplinary Programs, page 213.

Department of Communications

Professor: Moore
Associate Professors: Wennberg, Gillis (*Chair*)
Assistant Professors: Yoder
Instructor: Donovan
Lecturer: Johnson

Bachelor of Arts

The Department offers a comprehensive preparation in the field of communications firmly grounded in a well-rounded liberal arts education. In addition to developing written, spoken, and performance skills, students learn the theory, design, management, and production of communication.

Advanced courses in oral communication, management, graphics, audio and video production, among others, permit upper-class majors to advance into areas of concentration. Students may elect a concentration from: **Corporate**

Communications (either public relations or marketing communications), **Mass Communication**, or a **self-designed Honors Communications** concentration. Department facilities are located in the Steinman Center for Communications and Art. This center contains modern equipment in audio and video studios, satellite communications and in photography, graphics, and multi-image laboratories. The student radio station, WWEC 88.3 FM, and the 24-hour local access cable television production facility, ECTV-Channel 40, are housed in the center.

The curriculum is complemented by a number of departmental student organizations: National Broadcasting Society - Alpha Epsilon Rho (Honors Society), WWEC 88.3 FM Radio, Photography Club, Society for Collegiate Journalists (Honorary Society), International Association of Business Communicators (Elizabethtown College chapter) and ECTV Channel 40. In addition, *The Etownian* (student newspaper) and the *Conestogan* (yearbook), as departmentally related student activities, provide excellent journalism experiences for majors. These organizations sponsor speakers, workshops, contests, and field trips to enhance campus life and especially to make the student's classroom experience more meaningful.

The curriculum, complemented by many co-curricular activities, prepares majors for careers in corporate and institutional communications, public relations, marketing communications, broadcasting, newspaper and magazine writing and reporting, advertising, sales, law, the ministry, and many more fields.

Graduates are prepared as communications generalists. However, required additional courses in an area of concentration permit students to focus their general preparation into a specific area of career interest.

The 44 credits required for a bachelor of arts degree with a communications major include Communications 120, 125, 135, 205 (repeated for three semesters), 210, 248, 255, 485, and 16 credits in a concentration.

Prior to preregistration for the junior year, the student must elect a communications concentration, which requires 16 credits.

All majors are required to complete a minor area of study chosen in consultation with their advisor. The minor allows for complementary preparation in another discipline. The minor is also declared prior to preregistration for the junior year.

The Department offers four concentrations:

The **Corporate Communications concentration** prepares students as professional communicators for the challenges presented by commercial and nonprofit organizations. The **Corporate Communications: Public Relations concentration** develops those skills necessary for creating and disseminating information for internal or external audiences of an organization — from publication design to training programs to corporate image management. The **Corporate Communications: Marketing Communications concentration** merges expertise in communications and promotions with courses from the business department including marketing and advertising. There are three required courses in the concentration and one elective course chosen from a selection of communication and business courses. Public relations requires: Communications 311, 351 and

412. Communications electives are chosen from: Communications 304, 316, 333, 348, and 408. Non-communication electives are: Business Administration 265, 317, 330, 365, and 369. Marketing communications requires: Communications 311, 358, and Business Administration 215. Communications electives are chosen from: Communications 304, 348, and 351. Non-communications electives are: Business Administration 311, 312, 313, 315, 317, 319, 330, and 414.

The **Mass Communications concentration** educates students for professional positions in the mass media industry, such as print, broadcast, and Internet based media. With a foundation in writing for the media, the student has a variety of options for production, writing, and media management courses. Required are Communications 311, 316, and two approved electives to be chosen from the following: 321, 336, 348, 422, 424, and 426.

The **Self-designed Honors Communications concentration** permits students to develop a named independent plan of study to prepare for a specific professional communications career. Examples of a self-designed concentration might include: documentary news production, sports information/communications, photojournalism or health communications.

This concentration will require 16 credits of pre-approved courses with the required minor being an allied area of study. Requirements to declare this concentration option include: a 2.70 grade point average and a 3.00 in the major and a plan of study submitted to department faculty (through the faculty advisor) by February 15 of the sophomore year. The proposal must include a statement of purpose, goal and objectives and a plan of study (outlining courses and alternate courses) to be taken during the junior and senior year. The complementary minor must be selected with a rationale for its integration into the concentration. The approved concentration serves as a contract for graduation. Failure to maintain the required GPA or deviation from the plan will void the contract and the student will select one of the other concentrations to complete the degree.

Minors

A **Communications minor** is offered to students majoring in other departments. The minor permits a student to reach a level of competency in written, spoken, and visual communications to complement their primary area of preparation. The 24 credits required for a minor in communications include Communications 120, 125, 135 or 255, 210, 205 (repeated for 2 semesters in different activities) and two communications electives. One elective is from the 200 level and one course elected at the 300-400 level, only one (1) of which may be a production course.

Requirements for Communications Majors and Minors

All students must have a 2.0 grade point average to declare the major or minor and enroll in any courses above the 100 level.

Internships and Practica

Out-of-classroom, on-the-job field experiences are encouraged of all majors and minors. An experience linking the academic world and the work world can enable an advanced student to apply, in a practical way, understandings and abilities in a career-related position. Practica may be elected by majors and minors at any time and are available for one, two or three semester credits with on or off campus sponsors. They are repeatable to a maximum of four credits and may count only as general elective credit. Internship credits also count only as general elective credits. They are available only to seniors and must be taken only for twelve semester credits (requiring the internship to be the equivalent of a full-time position for an entire semester). Additionally, the internship option requires an overall 2.7 grade point average and a 3.0 grade point average in the major. The department's "Guide to the Preparation of Internships" serves as an outline of procedures and requirements for an internship. Students are permitted to seek their own positions for either option or to select one from the many opportunities already listed with regional communications organizations.

The department is affiliated with other major institutions and organizations to assist in providing internship experiences in major urban areas. These affiliations include: the Washington Center for Politics and Journalism, the American University Washington Semester Program, and the Institute on Political Journalism at Georgetown University. Students electing any internship or practica options are encouraged to consider the purchase of temporary professional liability/casualty insurance. The College assumes no liability for the student during the course of the person's performance of duties for an off-campus sponsoring organization.

General Information

Additional expenses for the communications student normally include production materials for audio, video, and graphics courses. These expenses are part of the following courses: Communications 125, 135, 255, 321, 336, 348, 408, and incidentals in other courses. Department courses use Macintosh computers in the classroom. It is recommended that communications majors obtain a Macintosh computer for personal use. Educational discounts may be available if purchased through the College Store. Both Mac and PC computers are supported throughout campus and in the department.

The Department of Communications participates in the College Honors in the Discipline program. For guidelines and details as to requirements, the student should consult the department chair.

The Department makes several recommendations to students for courses to complete the College Core. Courses have been chosen specifically to aid in the integration of the major with liberal arts studies. The student's checksheet specifies these suggestions.

105 Fundamentals of Speech
4 credits. Basic instruction on developing poise and confidence in speaking. Emphasis is placed on verbal and nonverbal communications, research, outlining, speech preparation, use of visual aids, and the rudiments of group dynamics and discussion. *This course also fulfills the Power of Language requirement of the 1990 Core program.*

115 Media and Society
4 credits. An examination of the structures, functions, political, social and economic impacts of mass media in the United States. A goal is to help students make critical and analytical consumers of the mass media. *This course also fulfills the 100 level Social World Communications requirement of the 1990 Core program. This course does not count in the major or minor.*

120 Introduction to Communications
4 credits. Through history, application, and practice, this course explores the field of communication in order to prepare students for the challenges of research, design, and understanding for the communication major. As an overview course, all areas of communication will be explored: public speaking, media, public relations, organizational, and interpersonal. *This course is required of all Communications majors and minors.*

125 Media Design and Production
4 credits. The course provides the design, theory and development of production skills and techniques for a variety of audio-visual materials, including photography. Students are required to participate in labs dealing with the operation and utilization of production equipment and the actual production of materials. A variety of computer applications is included. *Prerequisite: high school computer course or competency determined by the instructor.*

135 Publication Design and Graphics
4 credits. This course employs the principles of design, typography, and other assorted methods of production to provide a foundation in the preparation of posters, newsletters, magazines, special interest publications, and slide graphics. Elements of computer graphics are included. New media are explored. *Prerequisite: Communications 125.*

205 A, C, D Applied Communications
0 credit. Three semesters of participation in approved co-curricular activities is required of all majors. All participants must meet the standards of the activity in order to count toward meeting the requirement. The three semesters of participation must be in different, approved activities. These include: (A) WWEC 88.3 FM, (C) Etownian and Conestogan, and (D) ECTV Channel 40. Communication minors are required to have two semesters of different activities. No more than

one 205 course per semester may be scheduled. *All 205 requirements must be completed by the end of the junior year (except for minors). Second semester first-year students are eligible to enroll.* Graded Pass/No Pass.

210 Public Performance and Presentation
4 credits. Students become proficient at translating the written word into a professional oral performance. Exercises and projects develop competence in a variety of areas appropriate to any of the communications concentrations that may be chosen by a major. This course is an advanced professional speaking course. This course allows students to experience various presentation formats with the focus on one organization. *Prerequisites: Communications 120 and 125.*

248 Communication Law and Ethics
4 credits. An examination of the law of the field of communications as well as its history and effects. Current ethical issues are explored through case studies. Analysis of legal and ethical issues affecting the media, including the First Amendment, defamation, privacy, news gathering, obscenity, copyright and broadcasting/telecommunications, and the views of philosophers from Socrates to the present. *Prerequisites: Communications 120.*

251 International Communications
4 credits. This course is an examination of the systems of communication around the world. It is designed to examine the human experience as an American by exploring the sociocultural, economic, political, and scientific/technical impact of communication. *General elective credit only. This course also fulfills the 200-level Foreign Cultures and International Studies requirments of the 1990 Core Program.* Spring semester.

252 HUM Multicultural Communications
4 credits. **(Humanities Core Course)** This course is designed to study issues of diversity and the media by investigating the audience, content, and institutions of communications. Cultural perceptions will be explored as they relate to an individual's beliefs on diversity such as: race, ethnicity, gender, sexual orientation, religion, age, class, and disability. A research and field experience will challenge students to analyze and formulate their own views. *Core or general elective credit only. This course also fulfills the 200-level Values and Choice requirements of the 1990 Core Program.* Fall semester.

255 Multimedia Design and Production
4 credits. The technical and aesthetic fundamentals of the video and audio fields and studio production are explored. Through the development of basic technical and critical skills, the student will become knowledgeable in writing and producing basic audio and video projects. *Prerequisites: Communications 120, 125.*

304 Persuasion
4 credits. The theories and techniques of persuasion are explored from the perspective of the persuader and the audience. Topics include ethics, social responsibility, and motivation of persuasion, the techniques of nonverbal communication and mass appeals. *Prerequisite: Communications 120*. Spring semester, even-numbered years.

311 Reporting and Newswriting for the Print Media
4 credits. An introductory study of news media and values with emphasis on effective reporting and clear writing against deadlines. Accuracy, fairness, and logic in preparing stories under conditions similar to those encountered by professional journalists is stressed. Expectations of journalistic writing standards for newspapers and news magazines, from news briefs to feature length news articles are addressed. *Prerequisites: Communications 120, or permission of the instructor*.

316 Broadcast News and Copy Writing
4 credits. This course serves as an introduction to the styles and techniques of writing for the broadcast media. Emphasis will be given to conceptualizing, writing, and editing news copy for television and radio as well as copy for commercial and public service campaigns. *Prerequisites: Communications 311, or permission of the instructor*. Spring semester.

321 Advanced Audio Production
4 credits. An advanced examination of writing and producing audio materials for radio programming. In-depth analysis of the medium includes commercials, news, documentaries, and special programs. *Prerequisites or corequisites: Communications 255, 311*. Fall semester.

333 Organizational Communication
4 credits. Through theory, application, and practice, this course explores aspects of organizational communication in order to prepare students for the challenges of organized activity at work, in the community, and in the family. *Prerequisite: Communications 120*.

336 Advanced Video Production
4 credits. Advanced technical and aesthetic fundamentals of field and studio production and postproduction will be explored. Students continue to develop skills and knowledge in video production acquired in basic production. The emphasis of this courseis on the broadcast aspects of production, and students create productions that will air on the student-run television station. Students work in both individual and group settings. *Prerequisite: Communications 255*. Spring semester.

348 Advanced Media Production
4 credits. Advanced level skills in the conceptualization, design, development, and management of communications media in the areas of photography, multi-image, cyberspace, and computer graphics. Students are required to participate in laboratory experiences dealing with the production of photography, multimedia, and computer graphics at the advanced level. The basic and advanced theories of color, design, and interactivity will be explored to aid the student in the creative production of communications materials. *Prerequisites: Communications 255, or permission of the instructor*. Spring semester.

351 Public Relations
4 credits. A study of the theory and practice of public relations, its role in administration, its role in society, and its potential as a career. Course content addresses strategies and tactics of public relations in commercial, nonprofit, and government organizations. *Prerequisites: Communications 311*. Fall semester.

358 Introduction to Marketing Communications
4 credits. Skills are provided in blending concepts and applications of marketing communications that integrate advertising, public relations, sales promotion and other organizational effort into a strategic viewpoint in a global/international environment. Students are taught from an integrated marketing communication perspective with respect to planning, implementation, and control of marketing communication campaigns. *Prerequisite: Declaration of marketing communications concentration in the Department*. Spring semester.

371-379 Special Topics
Variable credit. Periodic offerings of the department or directed study in topics of special interest to advanced majors. These courses generally count as concentration elective credit as determined by the Department faculty.

408 A Systems Approach to Organizational Training
4 credits. The course studies the theory and application of instructional systems design techniques to corporate and organizational training problems. In addition to designing a training program, interactive computer techniques will be used to solve training problems. *Prerequisite: Communications 255*. Spring, odd-numbered years.

412 Advanced Public Relations
4 credits. An opportunity for students to build upon knowledge, skills, and expertise in public relations by applying them to the study of actual public relations cases. The analysis and evaluation of actual public relations practice lead the student to a better knowledge of public relations principles, application, and management in the profession. Agency projects enhance the application of advanced public relations practices. *Prerequisite: Communications 351*. Spring semester.

422 Media Management
4 credits. This course examines the structure and function of media companies and corporations, including broadcasting and print organizations. Emphasis is placed on management styles and principles as they apply to the specific requirements and public responsibilities of the media. *Prerequisites: Communications 248, 255*. Fall semester, odd numbered years.

424 Script and Screenwriting
4 credits. Emphasis is placed on identifying the tools used in successful creative writing and then putting them into practice. The student become familiar with, through study and practical application, the various visual/audio formats used in dramatic and documentary television and film writing. *Prerequisites: Communications 311, or permission of the instructor*. Fall semester, even numbered years.

426 Broadcast Programming and Promotions
4 credits. An examination of the programming and promotions philosophies and practices of the radio, television, and cable industries. *Prerequisite: Communications 316*. Spring semester, odd numbered years.

471, 472 Practicum
Variable credit. Supervised application of previously studied theory by professionals in the field of the student's concentration. *Practicum with an on/off campus sponsor may be used for free elective credit only, repeatable to a maximum of four credits, majors and minors. Prerequisites: At least sophomore standing, majors/minors only, and permission of the instructor*. Graded Pass/No Pass.

474 Internship
12 credits. Supervised application of previously studied theory by professionals in the field of the student's concentration. *Prerequisites: Senior standing, majors only, 2.7 cumulative grade point average with a 3.00 grade point average in the major. Must be taken for a full semester off campus for free elective credit only.*

480-489 Independent Study
Variable credit. A specially-designed course, unique to each student, allowing the individual the opportunity to pursue scholarly and practical work in the area of major interest under the guidance of members of the communications faculty. Specific goals and objectives permit the student to complete special projects, literature reviews, and research papers. *Prerequisites: At least junior standing, scholarship requirement, permission of the instructor, and approval of Independent Study Committee.*

485 Communications Seminar
4 credits. A capstone course providing an integration of course work, knowledge, skills, and experiential learning to enable the student to demonstrate a broad mastery of professional expectations for a promise of initial employability, further

learning, and career advancement. Critical thinking, creative thinking, problem solving strategies, effective written and oral communication, quantitative and qualitative analysis, computer literacy, library competency, and mediated communication related to a student's concentration and specific career plans is employed. *Prerequisite: Senior standing. Majors only.*

Department of Computer Science

Associate Professors: Leap (*Chair*), Tulley, Zlatarova
Assistant Professor: Wunderlich

Bachelor of Science

The advent of high-speed machines with enormous capacity for gathering, processing, storing, retrieving, and communicating information affects nearly every aspect of our professional and personal lives. Courses in computer science encourage the exploration and understanding of this social and technological phenomenon. Survey courses are offered for those who wish to understand in broad social contexts the nature of the computer and its effect on our lives and on society. Programming and language courses are offered for those who need to become skillful users of the computer. Advanced study in theory, hardware, software, and applications is provided for the computer science major and for those who want to use the computer effectively and knowledgeably in another discipline. Advanced courses relate closely to the curricula in business, natural and social sciences, engineering, and mathematics. Students are encouraged to develop simultaneous strengths in computing and in a discipline in which the computer is used as a tool.

The **Computer Science major**, **Information Systems major**, and **Computer Engineering major** (offered in conjunction with the Department of Physics and Engineering) are offered by the Computer Science Department. Each major provides a strong curriculum from which a professional career may be launched or a graduate program pursued.

The **Computer Science minor** and **Information Systems minor** are also offered which enable majors in other disciplines to obtain recognition for course work in computer science and information systems. Department faculty help tailor the elective course selections to meet individual needs of students pursuing a minor.

The main computing facility at Elizabethtown College is housed in Nicarry Hall. This facility consists of a number of servers that students may access. All students are given accounts on the College's WindowsNT network file server for file storage, email, and web page usage. A campus-wide, high-speed, fiber optic, ethernet-based computer network provides access to all the computer facilities from every building on campus including all dormitory rooms. High-speed access to the Internet is provided via two 12 Mbps ATM lines.

Three public personal computer labs equipped with Intel-based PCs running Windows XP are available for student use.

The Computer Science Department maintains a computing laboratory for use by Computer Science majors and advanced computer science students. The equipment in this laboratory includes: two Unix servers; a WindowsNT file server; numerous Linux, WindowsXP, and WindowsNT workstations; a Transputer-based hypercube parallel computer system; a Beowulf-class hypercube parallel computer system; and equipment for building and experimenting with computer networks and distributed computer systems. Students taking computer science courses are given accounts on the Computer Science department's servers.

The Computer Science and Engineering laboratories are equipped with Intel 80251 microcontroller development systems for assembly language programming and control of various devices, and FPGA (Field Programmable Gate Array) development systems for prototyping digital circuits and new computer architectures. Both systems include software simulators and circuit boards for prototyping hardware. These laboratories also have various breadboard circuit-trainers for creating small-scale and medium-scale integrated digital and analog circuits. There is also a rapidly growing robotics and neural network research effort equipped with various robotics parts and software for simulation and neural network development.

Major software systems available on the College's computers include most major computer languages (Ada, Visual Basic, C/C++, Java, HTML, Perl, JavaScript, and assembly language), many specialized languages and packages (Linux, SPSS, Matlab, Minitab, PageMaker, Microsoft Office XP, Microsoft Project XP, Visio Studio XP, FrontPage, Derive and Maple), and relational database management systems (Access, RMS, and MS SQL Server).

The Department strongly recommends all students intending to major in computer science purchase their own Microsoft Windows-based personal computer.

The **Computer Science major** requirements are: Computer Science 121, 122, 221, 322, 332, 341, 421 or 422, 490, and three computer science elective courses at or above the 200 level; Mathematics 121, 122, and 201.

The **Information Systems major** requirements are: Computer Science 121, 122, 205, 209, 221, 230, 240, 310, 341, 342, 409, and 490; Mathematics 251; Business Administration 265; and Economics 101**.**

The **Computer Engineering major** requirements are: Computer Science 121, 122, and 221; Engineering 100, 110, 210, 220, 230, 310, 332, 333, 410, 422, 433, and 491; Physics 200, 201, 202, and 302; Chemistry 105; and Mathematics 121, 122, 201, 222, and 321.

The **Computer Science minor** requirements are: Computer Science 121, 122, 221, and two computer science courses approved by the computer science faculty at or above the 200 level.

The **Information Systems minor** requirements are: Computer Science 121, 209, 240, 341, and one additional course from the Information Systems major requirements.

The Department of Computer Science participates in the College Honors in the discipline program. For requirement information, consult the department chair.

120 Introduction to Microcomputer Applications
3 credits. An overview of computer concepts, uses, and issues. The personal computer operating system, several software pages (database, desktop presentation, spreadsheet, and word processing), and the basics of the Internet and web design are major components.

121 MA Computer Science I
4 credits. **(Mathematics Core Course)** The fundamental concepts of computer organization, machine level representation of data, algorithmic development and structured programming are presented with an emphasis on the syntactic and execution characteristics of an object-oriented programming language (currently (C++) including datatypes; arithmetic operators and assignment; input/output, selection and iteration constructs; elementary data structures; and procedural abstraction. *This course also fulfills the 100 level Mathematical Analysis requirement of the 1990 Core program.*

122 Computer Science II
4 credits. A continuation of the presentation of the essentials of computer software. Emphasis will be placed on algorithm construction using simple data structures, file processing, recursion, and classes. Introduction will be made to the constructs of the C++ language using Visual C++. *Prerequisite: Computer Science 121.*

205 Visual Programming
4 credits. Introduction to object-oriented, event-driven Windows programming (currently Visual Basic) to solve problems. Emphasis is on the design perspective of the visual interface for data-entry screens concentrating on data accuracy, storage and processing. *Prerequisite: Computer Science 121.* Spring semester. Prof. Tulley.

209 Introduction to Database Systems
4 credits. An introduction to concepts of databases and database management systems including the storage, processing, evaluation, and display of data and related issues. The course represents a study of the database logical and physical design, of the basic management techniques using the most popular data languages (SQL and QBE), of the different methodologies for database development: the relational approach and the object-oriented approach. Practical skills to create concrete databases and the corresponding information systems using some

of the most used software products (Oracle, MS SQL Server, and MS Access) are considered. *Prerequisite: Computer Science 120 or 240.* Fall Semester. Prof. Zlatarova.

221 Algorithms and Data Structures
4 credits. The design of algorithms for handling abstract data types and structures including stacks, queues, linked lists and trees is coupled with an introduction to complexity analysis, storage allocation and its management. *Prerequisite: Computer Science 122.* Fall semester.

230 Microcomputer Architecture (Engineering 230)
4 credits. Board-level design of microcomputers and the study of various computer architectures and hardware/software computing platforms. Topics include computer ethics, hardware components such as memory registers, central processor types, controllers, peripherals, input/output architecture and devices, memory management, and networking. *Prerequisite: Computer Science 122.* Prof. Wunderlich.

240 Information Systems
4 credits. A study of the development of information systems in the new and changing global environment. It provides knowledge about the nature of information and its use in managerial decision making; the role of information systems within organizational strategy; the way that information is organized, stored, and processed by modern information technology as viewed from the interest of the business user; and how developments in networks and the Internet have made an impact on business. Practical skills in using different software tools for information system design and development are provided. Fall semester. Prof. Zlatarova.

310 E-Commerce Applications Programming
4 credits. A study of the architecture and functionality of the Internet and the World Wide Web including the effects of e-commerce on the way business transactions now occur followed by an in-depth study of web site design including comprehensive coverage of HTML and the establishment of an interactive database-driven website for conducting reliable e-commerce transactions. Server-side and client-side web page programming in Javascipt and web page programming CGI or active server pages and interfacing with the various databases are included. *Prerequisite: Computer Science 221.* Fall semester.

322 Formal Methods
4 credits. Topics include those associated with discrete mathematics as they apply to computer science, including induction and recursion in algorithms, graph theory in paths, trees and local area networks. A discussion of grammar classifications, finite state machines, and push-down automata emphasizing context-free grammars and their use in parsing programming languages. *Prerequisite: Computer Science 221.* Spring semester, alternating years. Prof. Tulley.

332 Computer Organization and Architecture (Engineering 332)
4 credits. Introduction to Boolean algebra, design of combinational and sequential circuits, and their use in von Neumann computer architecture. Basic parts of computer systems including memory, control and input-output systems are studied. An introduction to programming at the machine and assembly level will include addressing modes, program segmentation, interrupts, and assembler operation. The student is expected to design a simple micro-programmed computer. *Prerequisite: Computer Science 221.* Fall semester. Prof. Wunderlich.

333 Digital Circuits and Computer Interfacing (Engineering 333)
4 credits. Topics include: digital logic and integrated circuits to implement logic; architecture and machine language programming of minicomputers and microprocessors; design, testing, and construction of instrument-to-computer and computer-to-instrument interfaces; and design and testing of supporting software. Hours: lecture 3, laboratory 3. *Prerequisites: Computer Science 122 and 332, or permission of the instructor.* Spring semester, odd numbered years. Prof. Wunderlich.

341 Systems Analysis and Design
4 credits. An introduction to system development methodologies, systems analysis, detailed systems design, database design, user interface design, testing, documentation, and development of information systems. Knowledge and skills in using CASE tools, different software packages, commercial DBMSs, MS Visio, MS Project, and Visible Analyst to create, organize, process, and visualize their data is gained. The UML language representing one of the most recent tools for object-oriented systems design is considered. Preparation is provided for the systems analyst profession and offers a detailed understanding of the interaction between different computing aspects and basic business applications. *Prerequisite: Computer Science 120, 121, or 240.* Spring semester. Prof. Zlatarova

342 Computer Networks and Networking Systems
4 credits. Theory and knowledge of computer networks, the operation of the network, the characteristics of network architecture as it relates to the ISO model and administration, and the security and management of networks are provided. Network operating systems including TCP/IP, Novell, Token Ring, and AppleTalk are contrasted. Other topics include network hardware requirements, such as routers, repeaters, gateways, interface cards, file servers, network topology options, and the Internet. *Prerequisite: Computer Science 122.* Fall semester. Prof. Leap.

344 Simulation
3 credits. Fundamentals of modeling. Applications are programmed in higher-level languages as well as a specialized simulation language. *Prerequisites: Computer Science 221 and Mathematics 122, or permission of the instructor.* Prof. Wunderlich.

361 Computer Graphics
3 credits. Overview of the principles of computer graphics including the basis of

raster and vector display devices; representation of lines, curves and two- and three-dimensional scaling; hidden lines and surfaces; and animation techniques involving interactive graphics and the user interface. *Prerequisites: Computer Science 221 and Mathematics 201.*

362 Comparison of Programming Languages
3 credits. Comparative study of programming language concepts including data objects and data types, scope, procedures, abstraction mechanisms, sequence control, exception handling and concurrence and providing a framework for understanding language design. Intended to provide the necessary tools for critically evaluating existing and future languages and language constructs. *Prerequisite: Computer Science 221.* Prof. Tulley.

371-379 Special Topics
3 credits. A course designed to allow students to examine topics and problems of current relevance in computer science. *Prerequisite: permission of the instructor.*

409 Database Systems Development and Applications
4 credits. A study of advanced database systems, data warehousing, and data mining. The XML language is considered as a data exchange tool. Security and privacy aspects in databases are discussed. The WWW is used as a database application platform to create web-driven databases working with different visual environments and commercial DBMSs. Practical skills in the design and development of information systems and their application are involved. *Prerequisites: Computer Science 205 and 209, or permission of the instructor.* Spring semester. Prof. Zlatarova.

421 Compiler Design
4 credits. Design and construction of system software such as compilers, interpreters, and assemblers. Topics include command and statement parsing techniques, symbol tables, code generation, and code optimization. A project involving design and construction of a working systems program is assigned. *Prerequisites: Computer Science 221, 322, and 332.* Spring semester, alternate years. Prof. Leap.

422 Operating Systems and Systems Programming (Engineering 422)
4 credits. Principles and theories behind the design of operating systems and their practical implementation, including: executives and monitors, task handlers, scheduling algorithms, file handlers, device drivers and interrupt handlers, theories of resource allocation and sharing, multiprocessing, and interprocess communication. *Prerequisites: Computer Science 221 and 332.* Spring semester. Prof. Leap.

433 Advanced Computer Engineering (Engineering 433)
4 credits. Circuit level design and implementation of complete computer systems. Major laboratory projects require students to design, build, test and demonstrate computer hardware designs using Field Programmable Gate Arrays and bread-

boarded circuits. Class lectures include design of embedded systems, microcontrollers, microprocessors, and supercomputers. Hours: lecture 3, laboratory 3. *Prerequisites: Computer Science 221 and Engineering 332, 333*. Spring semester, even-numbered years. Prof. Wunderlich.

471 Internship in Computer Science
Variable credit. Work experience designed to supplement course work. By working for business, school, or government, the student gains valuable knowledge unavailable from textbooks. *Prerequisite: Approval of the computer science faculty.* Graded Pass/No Pass.

480-489 Independent Study
Variable credit. Independent study and research on a problem or topic in the field of computer science. *Prerequisite: Approval of the computer science faculty and the Independent Study Committee.*

490-491 Readings and Projects in Computer Science and Information Systems
3 credits. A directed project or study requiring faculty acceptance of a proposal with a final report and defense of work. *Prerequisites: Senior status or permission of the instructor.* Spring semester.

Earth Science

See Department of Physics and Engineering, page 162.

Department of Education

Professor: Blue (*Chair*)
Associate Professors: Bauman, Toro, Tyminski
Assistant Professors: Coyle, Kercher, Koogle, Pitcher, Newell
Lecturers: Walker, Myers

Bachelor of Arts, Bachelor of Science
Master of Arts in Educational Practice

Master of Arts in Educational Practice

The Elizabethtown College Master of Arts in Educational Practice (MAEP) program provides opportunities for experienced teachers to examine questions and problems of practical importance in a school and community setting. Designed for personal and professional growth of career teachers, the program drives the collaborative, hands-on, and field-based studies by school, grade, or subject directed cohort groups as students investigate the relationship between teaching and learning. The program maintains a multidisciplinary and interdisciplinary focus.

Bachelor of Science in Elementary Education

The department offers a major program leading to a Bachelor of Science degree and Pennsylvania certification in Elementary Education (K-6). The completion of an Early Childhood Education concentration (N-3) with this major results in certification in both Elementary and Early Childhood Education. The completion of the Special Needs concentration with a second student teaching experience adds Special Education certification. The completion of a concentration in Middle Level Education or Special Needs adds depth and breadth to the certificate. An Urban Education concentration is also available. These programs combine strong attention to the liberal arts and sciences with the development of high professional competence. Supported by the Core program, a required minor or concentration, and elective course work, these major programs creatively bring together the student, the school, and the subjects to be taught. Further, the department stresses the importance of supervised field experiences that complement on-campus courses in Education.

Bachelor of Arts or Bachelor of Science in Secondary Education

Programs in secondary education are available in selected academic areas (English, Mathematics, Biology, Chemistry, Physics, and special interdisciplinary majors in Citizenship Education, Social Sciences, and General Science). Carefully designed work in the academic or interdisciplinary major, the Core Program, and electives qualifies students for the degree appropriate to that major and for Pennsylvania certification for grades 7-12 in that subject. The completion of a concentration in Middle Level Education adds depth and breadth to the certificate.

Bachelor of Music in Music Education

A major and Pennsylvania certification are available in Music Education (K-12). Here, too, in-depth work in the major teamed with completion of the Core program and elective courses leads to the awarding of the degree and certification. (See Department of Fine and Performing Arts for more information.)

Certification

The department and College act as an agent of the Commonwealth of Pennsylvania in the teacher certification process for those meeting all appropriate standards.

General Requirements of the Undergraduate Programs

Admission to the Programs

Students must make an electronic application to the Department of Education for provisional acceptance into a certification program after they:

1. Complete 27 hours with a cumulative grade point average 2.8 or higher.
2. Complete at least two courses with ED prefixes with grades of C or better;
3. Submit a TB medical clearance.

4. Provide a record of Act 34, Child Abuse, or FBI criminal record clearances.

5. Declare an approved major and an acceptable minor or concentration, where required.

6. Provide a portfolio for review demonstrating interest and/or experience in professional education and progress toward meeting required competencies.

Approval of the Education department and any other appropriate major department is necessary for the application to be successful. Students are evaluated at the conclusion of each subsequent semester and may be advised or required to withdraw at any time the Department determines such action to be appropriate.

Progress in the Programs

Students must make an electronic or written application to the Education department for formal acceptance into a certification program after they:

1. Complete 54 hours with a cumulative grade point average of 3.0 or higher.

2. Complete at least three courses with ED prefixes.

3. Complete two English and two mathematics courses.

4. Receive passing scores for Pennsylvania certification on the tests of background knowledge and communication skills required by the Pennsylvania Department of Education: PPST Reading, PPST Writing, and PPST Mathematics.

5. Formally present an electronic or paper portfolio demonstrating continuing interest, experience, and growth in professional education and progress toward meeting required department competencies.

Approval of the Education department and any other appropriate major department is necessary for the application to be successful. Students are evaluated at the conclusion of each subsequent semester and may be advised or required to withdraw at any time the department determines such action to be appropriate.

Exit from the Programs

Students seeking award of the degree in the major only, without certification, must:

1. Receive approval of the Education department and any other appropriate department(s) for completion of their degree plan.

2. Satisfy all requirements of the major, except the professional internship and Pennsylvania certification test results, with a cumulative and major grade point average of 2.0 or higher.

3. Complete a College approved minor or department concentration, where required, with a minimum grade point average of 2.0.

4. Complete an alternative internship experience of at least 6 credits, as approved by the Department of Education.

Students seeking award of the degree in their major and certification must:

1. Satisfy all requirements of the major with the cumulative grade point average of 3.0 or higher.

2. Earn a grade of Pass (P) in the professional internship.

3. Complete a college approved minor or department concentration, where required, with a minimum grade point average of 2.0.

4. Earn passing scores for Pennsylvania on the appropriate specialty area test(s) of the Praxis II series. Students completing the Elementary Education, Special Education, and/or Music Education programs must also complete the Fundamental Subjects: Content Knowledge test successfully.

5. Formally and publicly present a portfolio summarizing activities and experiences in professional education and demonstrating satisfaction of all required competencies.

6. Receive approval of the Education department and appropriate major department(s).

7. Arrange for Praxis test score label(s) to be sent to the Education Department showing passing scores on all required tests.

8. Submit the application for Pennsylvania certification to the Education department.

The Professional Internship

The department stresses the importance of supervised field experiences throughout its programs which complement on campus course work in Education. The full-time professional internship, student teaching, is the capstone experience of the various teacher education programs. During this activity, there is a developmental process at work designed to lead to the professional and personal growth required to enter the profession. The belief of members of the program faculty is that the success of this experience is enhanced when students have the opportunity to work under the supervision and mentoring of full-time college faculty familiar with their previous and ongoing development.

Thus, the policy of the Elizabethtown College Education department is to place interns in cooperating school districts in the local area so full-time college faculty may supervise student teaching experiences while maintaining their other course responsibilities on campus. Requests for exceptions to this policy must be presented formally to the clinical faculty and staff of the Department as a group. To receive such an exception, students must demonstrate convincingly that an alternative placement decidedly would be more beneficial to their professional and personal development than completing the experience at a local site. Convenience or increased visibility for job searching are not considered important enough to earn an exception to department policy.

Special Requirements of the Programs

Elementary Education

Candidates for certification in Elementary Education (and related concentrations and certification sequences in Early Childhood Education, Special Needs Education, Urban Education, and Middle Level Education) must complete a major that consists of two key elements. The first of these emphasizes critical concepts and ideas important to one's general education and academic preparation for teaching. The second stresses both the content and process of helping others learn such important subject matter.

Three tracks are available to demonstrate mastery of these two components:

Track One requires successful completion of any other college approved major program and the series of courses in Education detailed below. This path leads to a dual major in Elementary Education and in the other major. Because it produces a major in another field along with certification in Elementary Education, this program possibly will require more than the standard eight semesters of baccalaureate work.

Track Two requires successful completion of a specially designed liberal arts major emphasizing content critical to the general education of a person with interest in helping children learn, the series of courses in pedagogy detailed below, and any college approved minor. With careful advising, planning, and course selection, this major routinely should be completed during a traditional four-year time period.

Track Three requires successful completion of the same specially designed content major and the same course work in pedagogy as is mentioned above. Additionally, it requires completion of an education related concentration. Concentrations include: Early Childhood Education, Special Needs Education, Urban Education, and Middle Level Education. This program normally also should be completed as part of a four-year, full-time college experience.

Degree and certification candidates choosing to complete the specially designed ability-based liberal arts major must complete the following competency areas and courses (or their approved substitutes):

Communication Skills: English 100, English 150 or Communications 105, and Education 250.

Qualitative Reasoning and Problem Solving in Mathematics, Science, and Health: Mathematics 105, 110, 117, 121, 251 or HMA 270; Mathematics 205 or an approved substitute; Biology 101, 102, 103, or other Biology course; and one other natural science course.

Aesthetic and Creative Expression: Art 105, 106, 120; English 104; Theater 105 or 165, Music 115, or three credits of Music or Dance instructions; and Education 210.

Cultural Awareness and Historical Perspective: Art 155, 157; English 220, 230, 240, 251; History 115, 210 or 212; Music 105; Philosophy 105, 201, 202; or Political Science 205.

Global Awareness and Multicultural Expression: Anthropology 111; Music 205; Political Science 245, Religion 105, 225, 291, 292, or any modern foreign language course; and a geography course.

Effective Citizenship: History 201, 202; Political Science 111, 150; Sociology 101, Social Work 160, or Women and Gender Studies 105.

Valuing and Decision Making: History 208, 212; Philosophy 115; Religion 105, 165, 245, or 281.

Unless otherwise noted, each of the following courses counts for 3 credits.

Candidates for certification in **Elementary Education** also must complete the following courses in educational content and pedagogy. Education 105, 150, 215 (0 credits), 265, 275, 325, 335, 345, 355, 365, 380 (0 credits), 395 (1 credit), Education 470 (16 credits), Education 490 (1 credit), and one elective course in Education (2-3 credits).

Candidates for certification in **Elementary Education** in tracks two or three additionally are required to complete at least one college-approved minor or one or more of the following concentrations.

Early Childhood Education: Education 315, 320, approved early childhood elective, and 470 (11 credits) and 476 (6 credits).

Special Needs Education: Education 280, 285, 290 (2 credits), 293 (2 credits), and approved special needs elective. Education 477 (6 credits) is only available to students completing Special Education certification.

Urban Education: Education 270; History 212 (4 credits) or Sociology 220 (4 credits), Education 270, approved urban education elective, Education 470 (11 credits) and Education 479 (6 credits).

Middle Level Education: Education 200, 300, approved middle level elective, Education 470 (11 credits) and Education 478 (6 credits).

In completing the above requirements or in addition to these requirements, all candidates for Elementary Education certification must complete two courses in English (one in writing and one in literature), two courses in mathematics, and two courses in American history or government. The English and mathematics courses must be completed by the end of the fourth semester. Students choosing the first track must also complete Education 210 and 250, and a geography course. Candidates must fulfill the requirements of the college's Core program and must complete enough electives in Education or other areas to meet college graduation requirements.

Special Education

Students seeking Special Education certification must complete all of the degree and certification requirements of the Elementary Education program and must additionally complete the following courses: Education 280, 285, 290, 293, one special needs elective, and 477.

Secondary Education

Students seeking certification in English, Mathematics, Biology, Chemistry, and Physics must first complete a carefully designed major program in their content area. Those interested in General Science, Citizenship Education, or Social Sciences certification must complete a specially designed interdisciplinary program.

Unless otherwise noted, each of the following courses counts for 3 credits.

Candidates for certification in Secondary Education also must complete the following courses in educational content and pedagogy: Education 105, 150, 215 (0 credits), 265, 275, 295, 305, 380 (0 credits), 470 (16 credits), and 490 (1 credit).

In completing the above requirements or in addition to these requirements, candidates for Secondary Education certification must complete two courses in English (one in writing and one in literature), and two courses in mathematics by the end of the fourth semester. They must fulfill the requirements of the College's Core program and must complete enough electives in Education or other areas to meet College graduation requirements. Students seeking Secondary Education certification may elect to complete either a minor(s) or concentration(s). The **Middle Level Education concentration** may be of special interest.

Music Education

The **Music Education major** requires Music 100 (7 semesters), 101, 102, 103, 104, 110, 111 or 133, 117 or 119, 118 or 268, 121, 122, 131, 132, 203, 204, 205, 217, 218, 221, 230, 231, 232 or 239, 234, 237, 238 or 119, 240, 321, 322, 330, 331, 332, 334, 343, 344, 433, 434, 440, 471, 491; a minimum of eight additional credits of applied music study, a minimum of nine semesters in ensemble participation (two semesters of Music 363 required); a senior recital, proficiency examinations in piano, voice, and guitar, and Education 105, 150, 215, 380, and 490. Candidates must also complete two courses each in English and mathematics.

Master of Arts in Educational Practice Program Requirements

Elizabethtown College offers a **Master of Arts in Educational Practice**. The program is organized into three major areas of emphasis and activity: context for research; nature and teaching of academic disciplines; and practical application.

Application to the program is made through the Office of Admissions. Applicants must meet the following criteria for admission to the program:

1. Hold a baccalaureate degree from a regionally accredited institution.

2. Be employed in an instructional capacity in a public or private institution of education at the nursery school through high school level and expect to be employed in this or a similar role throughout their time in the program.

3. Provide evidence of a grade point average of at least a 3.00 (out of 4.00) for the final thirty (30) credits of undergraduate or graduate work they have

completed. Provisional acceptance is possible for applicants who fall below this level but otherwise provide strong credentials.

4. Two letters of recommendation; an official transcript from each institution attended; and an essay describing issues and problems they would like to address individually or in a group as part of their graduate study.

5. Teams or cohorts of teachers are encouraged to apply as a group. Special admissions criteria may be applied to such applications.

A total of thirty (30) credits are required for completion of the program. Five of these credits must be earned for successful completion and presentation of an individually designed research project or of a major portion of a collaboratively designed research effort. One credit must be earned for submission of a professional portfolio demonstrating successful completion of all program objectives.

Additionally, candidates must complete all required work within five years of beginning a program of study and must maintain an overall grade point average of 3.00 or higher to continue in and complete the program.

A maximum of six graduate credits completed at another institution may be transferred and applied to the degree if not part of another completed graduate degree and if they match the structure/design of the program.

For additional information, contact the Department of Education at Elizabethtown College.

105 Foundations of Education
3 credits. A study of the historical, philosophical, sociological, and political foundations of education. Emphasis is on critical understanding of educational thought and practice in order to identify, interpret, and search for resolution of educational controversies and problems.

150 Child and Adolescent Psychology
3 credits. A study of factors underlying teaching and learning processes, including human growth and development, exceptionality, multiculturalism, motivation, teaching and learning theory, and context specific analysis. Requires field experience.

200 Adolescent Psychology
3 credits. An in-depth analysis and investigation of factors underlying teaching and learning processes in the middle, junior, or high school setting. Requires field experience. *Prerequisite: Education 150.*

210 Children's Literature
2 credits. An in-depth investigation of quality literature, including multicultural and informational literature, written for children from infancy to adolescence. Emphasis is placed on the development of strategies for using literature with children in a variety of settings. Students will be required to engage in book sharing

activities with children in preschool, library, hospital, and/or after school settings. *Prerequisites: Education 105 and 150. Corequisite: Education 250.*

215 Professional Portfolio I
0 credits. Development and refinement of the professional portfolio. *Prerequisites: Education 105 and 150. Corequisite: Education 265.*

225 Research Methods in Education
2 credits. An introduction to the fundamental principles of educational research. Students are required to do an in depth analysis of an actual study from the field of education and to write a research proposal for a study that could be conducted in an education setting. *Prerequisite: Education 150.*

250 Foundations of Literacy
3 credits. A study of emergent literacy and strategies for teaching beginning reading in an integrated language arts curriculum. Requires field experience. *Prerequisites: Education 105 and 150. Corequisite: Education 210.*

265 Media and Technology
3 credits. A study of instructional media and technology used in promoting teaching and learning across the grades and curricula. Applications are evaluated and developed. *Prerequisites: Education 105 and 150. Corequisite: Education 215.*

270 Issues in Diversity and Urban Education
3 credits. A study of the social, economic, political, historical, curricular, and evaluative issues that shape and constrain urban education. Multicultural and interracial understanding and education in the United States are explored through experiences in urban sites, including field trips and community learning opportunities. *Prerequisites: Education 105 and 150 or permission of the instructor.*

275 Inclusionary Practice
3 credits. A study of the processes of interacting effectively with an increasingly diverse population of exceptional children in the inclusive settings of school, workplace, and community. Emphasis is placed on the development of collaboration and teaming skills, management techniques, and home-school-community partnerships, as well as on understanding cultural and learning diversity. *Prerequisites: Education 105 and 150.*

280 Introduction to Teaching Exceptional Children
3 credits. A study of entitlement, student rights, procedural safeguards, parents' rights and responsibilities, least restrictive environment, highlights of new regulations, and the role of the regular teacher in the development of the individualized educational program. Field experience is required. *Prerequisites: Education 250 and 275. (Registration preference is given to students completing the Special Needs concentration and/or Special Education certification.)*

285 Methods of Teaching Students with High Incidence Disabilities
3 credits. A study of the specialized instructional strategies to adapt and accommodate classroom environments, testing methodologies, and curricula to meet the needs of exceptional children and youth. Emphasis is on high incidence disabilities such as learning disabilities, ADD/ADHD, emotional and behavior disorders, communication disorders, and cultural or linguistic diversity. Field experience is required. *Prerequisites: Education 250 and 275. Education 280 and 285 may not be taken concurrently. (This course is normally only available to those completing the Special Needs concentration and/or Special Education certification.)*

290 Methods of Teaching Students with Low Incidence Disabilities
2 credits. A study of the specialized instructional strategies to adapt and accommodate classroom environments, testing methodologies, and curricula to meet the needs of exceptional children and youth. Emphasis is on low incidence disabilities such as severe cognitive needs, low vision and blindness, hearing impairments and deafness, deaf-blindness, autism, severe health and physical disabilities, and traumatic brain injury. Field experience is required. *Prerequisite: Education 280. Corequisite: Education 293. (This course is normally only available to those completing the Special Needs concentration and/or Special Education certification.)*

293 Assessment and Instruction in Special Education
2 credits. A study of the basic purposes and uses of various forms of assessment in Special Education. Emphasis is on basic uses of tests, important characteristics of good testing, legal and ethical consideration in assessment, and adapting tests to accommodate students with disabilities. *Prerequisite: Education 280. Corequisite: Education 290. (This course is normally only available to those completing the Special Needs concentration and/or Special Education certification.)*

295 Curriculum Issues in Secondary Education
3 credits. A study of the theory and practice of secondary education emphasizing developmental reading and reading in the content area, assessment, and educational research. *Prerequisite: Education 150. Corequisites: Education 305 and 380.*

300 The Middle School
3 credits. A study of the philosophy, history, and organization of the American middle school and its staff, clientele, and curriculum. Field experience is required. *Prerequisites: Education 105 and 150.*

305 Methods of Secondary Education
3 credits. A study of the instructional methodology of an academic discipline under the guidance of a clinical professor in the academic major. Field experience is required. *Prerequisites: Education 105 and 150. Corequisites: Education 295 and 380.*

310 History of Science
1 credit. Selected readings from texts on the history of science. *Prerequisites: Must be in the General Science Secondary Certification Program or General Science minor, and permission of the instructor.*

315 Early Childhood Education
3 credits. A study of programs for young children with regard to theoretical bases, curricular goals, teacher role, physical environment, and program sponsorship. *Prerequisites: Education 105 and 150.*

320 Special Methods in Early Childhood Education
3 credits. A study of developmentally appropriate procedures and materials for the preschool child, emphasizing the importance of play in Early Childhood programs. *Prerequisites: Education 210 and 250.*

325 Science and Health in Elementary Education
3 credits. A study of science processes in an elementary school program and the utilization of multiple resources, organization, management, evaluation, instructional strategies, and integration of science and health in the elementary program. Field experience is required. *Prerequisites: Education 210 and 250. Corequisites: Education 335, 345, 355, 365, 380, and 395.*

330 Teaching Gifted and Talented Children
3 credits. A study of the processes of teaching gifted and talented children effectively in the regular classroom setting. Students will learn skills which will enable them to provide instruction designed to help meet the exceptional needs of gifted and talented children. *Prerequisite: Education 275.*

332 Seminar in Urban Issues (SW 332)
3 credits. Explores the issues of poverty, learning difficulty, homelessness, mental and physical health, urban schooling, and cultural and linguistic differences. Several two-day and one-day field experiences in urban sites are required, in addition to 26 hours of community service learning in a diverse site. *Prerequisite: Education 270 or permission of the instructor.*

335 Mathematics in the Elementary School
3 credits. A study of how children develop a background of understanding and skill in mathematics, concentrating on the development of problem solving, reasoning, and communication skills in mathematics, and connecting mathematics and the real world. Additional focus will be on organization for instruction, alternative means of evaluation, and teaching special needs and at-risk students. Field experience is required. *Prerequisites: Education 210 and 250. Corequisites: Education 325, 345, 355, 365, 380, and 395.*

340 Story-telling
3 credits. Ancient medium of story-telling — its traditions, purposes, and potential for classroom teaching are explored. Students learn to find and research tales and motifs, create and tell them, fitting them into the needs of their audiences.

345 Reading and the Integrated Curriculum
3 credits. A study of the processes of learning to read and think critically about texts across the K-6 curriculum. The approach of the course is literature-based and student centered, and it includes both creating and evaluating an integrated curriculum for strategic meaning-making. Field experience is required. *Prerequisites: Education 210 and 250. Corequisites: Education 325, 335, 355, 365, 380, and 395.*

350 Special Methods for Middle School Instruction
3 credits. A study of the process and procedures for encouraging developmentally appropriate teaching and learning at the middle school level. Field experience is required. *Prerequisite: Education 275.*

355 Writing and Language Arts in the Integrated Curriculum
3 credits. A study of writing instruction and its integration across the elementary school curriculum. Field experience is required. *Prerequisites: Education 210 and 250. Corequisites: Education 325, 335, 345, 365, 380, and 395.*

360 Creative Activities in Early Childhood Education
3 credits. A study of the developmental stages of creativity in the young child. Includes planning, implementing, and evaluating creative activities in art, music, movement, and dramatic play. *Prerequisites: Education 210 and 250.*

365 Social Studies for Elementary Education
3 credits. A study of content, teaching strategies, materials, organizing approaches, and curricula for teaching social studies in the elementary school. Field experience is required. *Prerequisite: Education 210 and 250. Corequisites: Education 325, 335, 345, 355, 380, and 395.*

371-379 Special Topics in Education
Variable credit. Topic chosen in response to student and faculty interests. *Prerequisite: permission of the instructor.*

380 Professional Portfolio II
0 credits. Development and refinement of the professional portfolio. *Corequisites: Education 325, 335, 345, 355, 365, and 395 for Elementary Education majors; Education 295 and 305 for Secondary Education majors; Music 233 for Music Education majors.*

395 Integrated Teaching and Learning
1 credit. A study of the understandings, skills, and dispositions associated with organizing and offering integrated learning experiences for children. Field experience is required. *Prerequisites: Education 210 and 250. Corequisites: Education 325, 335, 345, 355, 365, and 380.*

400 Senior Project
1-3 credits. Students participating in the department's Honors in the Discipline Program may register for this course during semesters in which research on or writing of their project is being completed. Recognition for Honors in the Discipline is not assured by completion of this course. See Department chair for additional information. *Prerequisite: Invitation to Honors in the Discipline Program.*

470 Professional Internship (Elementary or Secondary Education)
16 credits. Supervised student teaching for a full semester at the level of certification. *Prerequisites: Completion of all program requirements with Education prefixes and cumulative GPA required at the time of full admission to the program.* Graded Pass/No Pass.

470 Professional Internship (Dual)
11 credits. Supervised student teaching for a partial semester at one level of certification. *Prerequisites: Completion of all program requirements with Education prefixes and cumulative GPA required at the time of full admission to the program. Corequisite: Education 476, 478, or 479.* Graded Pass/No Pass.

475 Special Internship
6-8 credits. Alternative internship experience approved by the Department of Education. *Prerequisite: completion of all major program requirements except the professional internship with a minimum grade point average of 2.0.* Graded Pass/No Pass.

476 Professional Internship (Early Childhood Education)
6 credits. A supplemental professional experience to Education 470 (11 credits) in a pre-K setting. *Prerequisites: Cumulative GPA required at the time of full admission to the program. Corequisite: Education 470 (11 credits).* Graded Pass/No Pass.

477 Professional Internship (Special Education)
6 credits. A supplemental professional experience to Education 470 in a special education setting. *Prerequisites: Education 470 and cumulative GPA required at the time of full admission to the program. This course is available only to those seeking Special Education certification.* Graded Pass/No Pass.

478 Professional Internship (Middle Level Education)
6 credits. A supplemental professional experience to Education 470 in a middle school setting. *Prerequisite: Cumulative GPA required at the time of full admission to the program. Corequisite: Education 470 (11 credits).* Graded Pass/No Pass.

479 Professional Internship (Urban Education)
6 credits. A supplemental professional experience to Education 470 (11 credits) in an urban educational setting. *Prerequisite: Cumulative GPA required at the time of full admission to the program. Corequisite: Education 470 (11 credits).* Graded Pass/No Pass.

480-489 Independent Study
Variable credit. Upon the initiative of the student, a program of study may be organized with a faculty member on a topic of mutual interest. *Prerequisite: permission of Department chair and Independent Study Committee.*

490 Exit Defense of Professional Portfolio
1 credit. Public presentation and defense of professional portfolio for graduation and certification. *Prerequisite or corequisite: Education 470.*

Elizabethtown College is in compliance with Title II of the Higher Education Act and disclosure reporting. Requests for disclosure information (i.e. teacher preparation programs, successes on passing state licensing and certification examinations, and job placement) may be obtained by contacting the Elizabethtown Education Department.

Engineering

See Department of Physics and Engineering, page 162.

Department of English

Professors: Downing (*Director, Professional Writing Program*), Martin (*Chair*), Sarracino
Associate Professors: Harman, Mead, Rohrkemper
Assistant Professors: Adams, Willen (*Director, Freshman Composition*), Scott (*Director, Secondary Education*)
Lecturers: Isaak, Olson

Bachelor of Arts

The Department of English offers an education which stresses both the knowledge and effective use of language and an understanding and appreciation of our literary heritage. Excellence in both writing and literary studies is the fundamental aim of the Core program and of the rigorous and comprehensive concentrations which prepare students for graduate training in English or professions such as law and medicine, for professional writing careers in a variety of fields, or for teaching at the secondary level of education.

Majors Offered

The **English major Literature concentration** requires major British writers (200); one pre-1800 British period course (220: Medieval, Renaissance, or Neo-Classical); one post-1800 British period course (230: Romantic, Victorian or Modern); one American period course (240: Romantic, Realist, or Modern); one additional American literature course (240, 245, 251, or 440); one genre or themes course (300-level); one middle-digit 8 professional writing course (185-386) or linguistics course (302); one English elective (185 or higher); one authors seminar (400-level); literary theory (494).

Note: In the literature concentration, one course, excluding Shakespeare, at the 300 or 400 level must be a pre-1800 British literature course. No course may satisfy more than one requirement for the major. Students may substitute an approved independent study (480-89) for one of the 300-level courses.

The **English major Professional Writing concentration** requires major British writers (200) or American period course (240); one British period course (220 or 230); one 400-level authors course; one genre course (300-level); 185; one writing in the workplace course (282 or 285); one creative genres course (280, 281, 286, or 287); one publishing course (385 or 386); one writing elective (283, 284, 302, 473); rhetorical theory (493).

Note: In the professional writing concentration, one course from the periods, authors, or genres category must be a pre-1800 British literature course (excluding Shakespeare). Students may fulfill their writing elective by completing a second course from the Writing in the Workplace category or the Publishing category

The **English major Secondary Education concentration** requires major British writers (200); one British period course (220 or 230); two American period courses (240: Romantic, Realism, or Modern); one genre or themes course (300-level) or authors seminar (400-level); one Shakespeare course; 185; 251; 302; one writing elective (middle-digit 8); 306; and Education 105, 150, 215, 265, 275, 305, 389, 470, 490.

English majors in all concentrations must complete an ancient or modern language course at the 112 level, or higher, if so placed.

Minors Offered

The Department of English offers a Literature minor and a Professional Writing minor. Each minor requires five courses (20 credits) distributed as follows:

Literature: Two British or American courses numbered 200, 220, 230, or 240; one 300-level literature course; one 400-level authors course; one elective in literature or writing, 185 or higher. Note: one 300-level or 400-level course must be a pre-1800 course.

Professional Writing: English 185; two 200- or 300-level writing courses; one 200-level British or American literature course; one 300- or 400-level literature course.

The Department of English participates in the College Honors in the Discipline program. For requirement guidelines student should consult the department chair.

100 PL Writing and Language
4 credits. **(Power of Language Core Course)** A writing course focusing on writing as a process of discovery concerning ideas, drafting, revising, and editing. Students read, write, and speak about a variety of aspects of the power of language. *Note: A student may be placed in English 100 or 150. Those assigned to English 100 must complete this course to satisfy the Power of Language core and may not enroll in English 150. A student placed in English 150 may not enroll in English 100. This course also fulfills the Power of Language requirement of the 1990 Core program.*

101 CE Literature: Form and Performance
4 credits. **(Creative Expression Core Course)** Students gain a deep critical and experiential knowledge of various forms of literature both by reading them and by writing or performing their own creations. Individual sections might focus on poetry, drama, Shakespeare, short story, film, and the novel, or some combination of these. *This course also fulfills the 100 level Creative Expression requirement of the 1990 Core program.*

104 HUM Introduction to Literature
4 credits. **(Humanities Core Course)** An introduction to a specific literary genre (drama, fiction, or poetry) which emphasizes the nature of language and form and helps students make moral and aesthetic judgments. Since the course may vary in focus, it may be repeated for credit, providing the content is not duplicated. *This course also fulfills the 100 level Values and Choice requirement of the 1990 Core program.*

150 PL Advanced Writing and Language
4 credits. **(Power of Language Core Course)** A writing course designed to explore the writing process while studying the history of the English language, its past and present uses and powers. Students write, read, and speak about a variety of aspects of the history and power of language. *Note: A student may be placed in English 100 or 150. Those assigned to English 100 must complete this course to satisfy the Power of Language core and may not enroll in English 150. A student placed in English 150 may not enroll in English 100. This course also fulfills the Power of Language requirement of the 1990 Core program.*

180 CE Introduction to Creative Writing - WRI
4 credits. **(Creative Expression Core Course)** This course encourages students' creative self expression develops their understanding and appreciation of three principal genres of fiction, drama, and poetry. *This course also fulfills the 100 level Creative Expression requirement of the 1990 Core program.* A Writing and Research Intensive Course. Prof. Downing.

185 Introduction to Professional Writing
4 credits. The varieties of discourse and research in many professional areas, including instruction in basic terminology and graphic techniques. *Prerequisites: Power of Language requirement and permission of the instructor.* Profs. Downing, Mead, Rohrkemper, Willen.

200 Major British Writers
4 credits. A survey course, it introduces majors to the literature of Britain, to important literary and historical concepts, and to the essential skills and methods of the discipline (such as close textual analysis, techniques for developing original and interesting theses, and basic uses of literary criticism). *Students in the literature concentration should take this course as soon as possible after declaring an English major.* Spring semester.

220 WCH Pre-1800 British Literature and Culture - WRI
4 credits. **(Western Cultural Heritage Core Course)** A study of the literature and culture of Britain before 1800, with an emphasis on the literary forms, philosophy, cosmology, sexual roles, and political events of this important period of growth in English literature. This course focuses on Medieval, Renaissance, or Neoclassical literature, or on a combination of works from two or more of these periods. Since the course may vary in focus, it may be repeated for credit, providing the content is not duplicated. *This course may fulfill the 200 level Cultural Heritage requirement of the 1990 Core program.* A Writing and Research Intensive Course.

230 WCH Post-1800 British Literature and Culture - WRI
4 credits. **(Western Cultural Heritage Core Course)** An examination of British poetry, fiction, and nonfiction prose in historical and cultural contexts. Each section of the course covers writers from one or more periods: the Romantic period (e.g., Blake, Wordsworth, and Keats); the Victorian period (e.g., Dickens, Charlotte Bronte, Tennyson, and Browning); and the Modern period, 1900 to the present (e.g., Woolf, Yeats, Joyce, and Achebe). Since the course may vary in focus, it may be repeated for credit, providing the content is not duplicated. *This course also fulfills the 200 level Cultural Heritage requirement of the 1990 Core program.* A Writing and Research Intensive Course. Prof. Adams

H231 HUM Honors Irony, Humor, and Despair in Modern Literature - WRI
4 credits. **(Humanities Core Course - Honors)** An exploration of the relationship between three great, quintessential modern writers and an investigation of their use of humor and irony to stave off despair and affirm at least the value of artistic creation and the need for each of us to assert meaning in life. *This course also fulfills the 200 level Cultural Heritage requirement of the 1990 Core program.* A Writing and Research Intensive Course.

240 WCH American Literature and Culture - WRI
4 credits. **(Western Cultural Heritage Core Course)** A study of the literature and culture of America from the beginnings to modern times. Each section of the course covers writers from one or more periods: the Romantic period; the Realist period; and the Modern period. Since the course may vary in focus, it may be repeated for credit, providing the content is not duplicated. *This course also fulfills the 200 level Cultural Heritage requirement of the 1990 Core program.* A Writing and Research Intensive Course. Profs. Sarracino, Rohrkemper.

H243 HUM Honors American Visions - WRI
4 credits. **(Humanities Core Course - Honors)** A study of American cultural history centered on American fiction and with an emphasis on how popular culture, political and social history, and the fine arts reveal new ways of understanding both the fiction and the transitional eras these works represent. *This course will fulfill the 200 level Cultural Heritage requirement of the 1990 Core program.* A Writing and Research Intensive Course.

245 HUM Growing Up in America - WRI
4 credits. **(Humanities Core Course)** Through a careful reading of important American novels and biographies, students better understand the distinct experiences that comprise growing up in America. Both the uniqueness of experiences of growing up in America and the universality of shared problems, crises, challenges, and joys are explored. *This course also fulfills the 200 level Values and Choice requirement of the 1990 Core program.* A Writing and Research Intensive Course. Prof. Sarracino.

251 HUM Multicultural Literature - WRI
4 credits. **(Humanities Core Course)** An examination of poetry, fiction, drama, and nonfiction prose from cultures traditionally marginalized because of ethnic and racial differences. Courses will investigate the historical role and context of American and world authors such as Frederick Douglass, Jean Toomer, Sherman Alexie, and Sandra Cisneros, as well as the values evident in their work. *This course also fulfills the 200 level Cultural Heritage requirement of the 1990 Core program.* A Writing and Research Intensive Course.

280 Creative Writing -Poetry, Prose
4 credits. The writing of original poetry or prose. Graded pass/no pass. *Prerequisite: permission of the instructor.* Prof. Sarracino.

281 CE Writing and Analyzing the Short Story - WRI
4 credits. **(Creative Expression Core Course)** Students will analyze classic short stories using the language and concepts of literary criticism through discussion, oral presentations, and a major research paper. Emulating classic literary models, they will write original short stories, revising according to detailed critiques by

their peers and the instructor. *Prerequisite: Power of Language requirement. This course also fulfills the 100 level Creative Expression requirement of the 1990 Core program.* A Writing and Research Intensive Course.

282 Technical Writing
4 credits. A course emphasizing clarity and precision in writing and including instruction in oral and graphic presentation of technical and scientific information *Prerequisite: permission of the instructor. Professional Writing majors must have completed English 185.* Fall semester. Prof. Willen.

283 Legal Writing
4 credits. A survey of the types of writing common in government, politics, and law. Students practice basic legal analysis, statistical analysis, persuasion, and more advanced forms of legal writing such as the appellate brief. *Prerequisite: permission of the instructor. Professional Writing majors must have completed English 185.* Alternate years. Prof. Mead.

284 Writing in the Social Sciences
4 credits. Students analyze articles, books, reviews, and research in the fields of psychology, political science, anthropology, sociology, history, and economics. Writing a variety of research forms, including the observation, experiment, survey, and interview is also practiced. *Prerequisite: permission of the instructor. Professional Writing majors must have completed English 185.* Alternate years. Prof. Downing.

285 Business Writing
4 credits. Students focus on the most common writing tasks in business and public relations, including instruction and practice in writing and laying-out display ads, news releases, brochures, newsletters, in-house proposals, and business plans strengthening their competence and conficence in business communication. *Prerequisite: permission of the instructor. Professional Writing majors must have completed English 185.* Prof. Downing.

286 Creative Non-Fiction
4 credits. A combination readings and workshop course in literary non-fiction, this course acquaints students with the research and writing techniques used by writers of non-fiction and with the history of the genre. Students select their own writing projects from a variety of genres. *Prerequisite: Permission of the instructor. Professional Writing majors must have completed English 185.* Alternate years. Prof. Willen.

287 Writing Children's Literature
4 credits. An introductory survey of children's literature primarily from 19th and 20th century British and American authors. Students write fiction and nonfiction for a variety of current target markets in children's literature such as picture books, early readers, chapter books, and middle-grade to young-adult level books.

Prerequisite: Permission of the instructor. Professional Writing majors must have completed English 185. Alternate years. Prof. Mead

302 Grammar and Linguistics
4 credits. A summary of traditional, transformational, and transactional grammars; and structural, social, and psycholinguistics, including biological and environmental influences on language acquisition. Alternate years. Prof. Mead.

305 Methods of Secondary Education: Literature
3 credits. Approaches to teaching literature at the secondary level with practical application of various methodologies through internships in local middle or high schools. *Prerequisite to professional semester.* Prof. Scott.

306 Methods Seminar in Teaching Language and Composition
4 credits. The teaching of English grammar and usage with reference to teaching composition at the secondary school level and practical application of various methodologies through teaching internships in the classroom and/or the Learning Center. *Prerequisite to professional semester.* Prof. Scott.

311 Genre Studies
4 credits. A study of a particular genre such as autobiography or nonfiction narrative. Representative works will be discussed. Since the course may vary in focus, it may be repeated for credit, providing the content is not duplicated.

313 Studies in Drama
4 credits. A study of drama considering such issues as links between the visual and verbal representation of meaning, and the development of the concepts of comedy and tragedy. Since the course may vary in focus from early drama to modern, it may be repeated for credit, providing the content is not duplicated. Prof. Martin.

317 Studies in Narrative
4 credits. A study of narrative writing, including the development of the genre and its literary history in particular periods. Representative works are discussed. Since the course may vary in focus from early forms to modern, it may be repeated for credit, providing the content is not duplicated.

318 Studies in Poetry
4 credits. A study of at least three major poets from one or more periods of American or English literature. Since the course may vary in focus from early forms to modern, it may be repeated for credit, providing the content is not duplicated.

320 Themes, Traditions, and Perspectives
4 credits. An examination of selected literary themes and traditions and brings a variety of critical perspectives to bear on works of poetry, drama, and/or prose. Since the course may vary in thematic focus, it may be repeated for credit, providing the content is not duplicated.

371-379 Special Topics
4 credits. Courses involving specific subjects chosen in response to student/faculty interest.

385 Writing and Editing for Publication
4 credits. Advanced study of writing nonfiction articles, copy editing and strategies for getting manuscripts published. *Prerequisite: permission of the instructor. Professional Writing majors must have completed English 185 and either 282 or 285.* Alternate years. Profs. Downing, Mead.

386 Technologies of Writing
4 credits. An introduction to various technologies used by professional writers. Especially, students will explore the ways that technology allows writers to manipulate the relations between word, image and document design. *Prerequisite: English 282 or 283.* Alternate years. Prof. Willen.

403 Shakespeare
4 credits. A study of representative works by Shakespeare. *Students who have taken EN 332 may not take this course.* Alternate years. Prof. Martin.

420 Pre-1800 British Authors
4 credits. A study of the writings of one or more British authors writing before 1800, such as Chaucer, the Pearl Poet, Donne and Herrick, or Pope and Swift. Since the authors studied may vary from term to term, the course may be repeated for credit, provided the content is not duplicated.

430 Post-1800 British Authors
4 credits. A study of the writings of one or more British authors writing after 1800, such as Blake and Keats, or Austen and Eliot. Since the authors studied may vary from term to term, the course may be repeated for credit, provided the content is not duplicated.

440 American Authors
4 credits. A study of the writings of one or more American authors such as Hemingway, Morrison, and Faulkner, or Hall, Bly, and Kinnell. Since the authors studied may vary from term to term, the course may be repeated for credit, provided the content is not duplicated.

450 World Authors
4 credits. A study of the writings of one or more World authors such as Dante, Tolstoy, or Rilke. Since the authors studied may vary from term to term, the course may be repeated for credit, provided the content is not duplicated.

470-479 Internships
4 credits. Internships provide students with practical workplace experience at a newspaper office, magazine publisher, public relations firm, or other venue for professional writing. *Students must meet eligibility requirements and complete the application process before registering.* Prof. Downing.

480-489 Independent Studies in English
4 credits. Individual student are provided the opportunity to pursue work in an area of major interest under the guidance of a member of the Department of English. *Prerequisite: Approval of Department chair and the Independent Study Committee.*

493 Seminar in Rhetorical Theory
4 credits. A seminar for majors in the professional writing concentration on the history of rhetoric and its application to the composing process. *Prerequisites: Professional Writing concentration, English 185, and one 200-level professional writing course.* Alternate years. Prof. Mead.

494 Seminar in Literary Theory
4 credits. A seminar for majors in the literature concentration on literary theory and its application to texts. *Prerequisites: Literature concentration or permission of the instructor.* Alternate years. Prof. Adams.

498-499 Directed Senior Research Project
4 credits. English majors of superior ability are allowed to explore a topic of their choosing and to produce a major work of forty to sixty pages. *Prerequisites: senior standing, a grade point average of 3.5 or higher, and permission of the department.* Two credits are awarded each semester of the senior year. See the Department chair or head of the English Directed Senior Research Program for more information.

Education 305 Methods of Secondary Education: Literature
3 credits. Approaches to teaching literature at the secondary level with practical application of various methodologies through internships in local middle or high schools. *Prerequisite to professional semester.* Prof. Scott.

Department of Fine and Performing Arts

Professors: Friedly, Harrison (*Chair*)
Associate Professors: Behrens, Haines, P. Ricci, Schellenberg, Sevareid, Taylor
Assistant Professors: Au, M. Fritz, Kun, Smith
Lecturer: Ronning

Bachelor of Arts; Bachelor of Music

The Department of Fine and Performing Arts plays a major role in fulfilling the College's mission "to nurture sound intellectual judgment, keen moral sensitivity, and an appreciation for beauty in the world." In the process of acquiring knowledge of the arts, students develop aesthetic judgment and an appreciation for the value of the arts to humanity. The department encourages students to reach their highest potentials and to use their knowledge and their talents to benefit others.

The Department offers three majors which lead to the degrees in music: the **Bachelor of Music in Music Education**, **Bachelor of Music in Music Therapy**, and **Bachelor of Arts in Music**. Also offered are: **Bachelor of Arts in Art**, and **Bachelor of Arts in Theatre**. A **History of Art minor**, **Studio Art minor**, **Music minor**, and **Theatre minor** are also offered.

Art

The academic and the practical courses in the art program aim to refine students' creative potential, expand their judgment of the visual arts, and discern the contrasts and relationships among the arts of our Western culture and those of other traditions. Students interested in applied art should follow the studio track, and those interested in working in museums and galleries or pursuing graduate study in art history should follow the art history track.

Majors

The **Art major: History track** requires Art 105, 106, 120, 155, 157, 205, 210, 230, 251, 498, a 4-credit internship, and eight additional credits in art history; and Modern Language 112 or higher.

The **Art major: Studio track** requires Art 105, 106, 120, 155, 157, 205, 210, 230, 251, 498, and either Art 250; 260, or 270; and an additional 12 credits of electives from Art 204, 206, 305, 320, 352, 401, 402, 403, 404, 405, or Communications 125; and Modern Language 112 or higher.

Minors

The **Art History minor** requires Art 155, 157, 230, 250, 260, 270 (a 4-credit internship may be substituted for one 250, 260, or 270).

The **Studio Art minor** requires Art 105; 106 or 120; 155 or 157; 230; 250 or 260 or 270; six credits of electives in studio arts courses. Communications 125 may be one of the elective courses.

105 CE Drawing I
4 credits. **(Creative Expression Core Course)** Studio practice in basic drawing media for sketching and rendering both live and inanimate subjects. *This course also fulfills the 100 level Creative Expression requirement of the 1990 Core program.* Prof. Schellenberg.

106 CE Ceramics I
4 credits. **(Creative Expression Core Course)** Introduction to ceramic design and history, with emphasis on fundamental construction, decorating, glazing and firing techniques, and operation of the machinery of the medium. *This course also fulfills the 100 level Creative Expression requirement of the 1990 Core program.* Prof. Friedly.

120 CE Sculpture
4 credits. **(Creative Expression Core Course)** An exploration in the three-dimensional medium of traditional and contemporary ideas, basic problems in design, and instruction in the use of the sculptor's materials and techniques. *This course also fulfills the 100 level Creative Expression requirement of the 1990 Core program.* Prof. Friedly.

130 Computer Art
3 credits. An introductory studio/lecture course designed to increase visual literacy and vocabulary, to develop design skills and present the creative possibilities of the computer as an art making and editing tool. Historical, conceptual, technical and contemporary issues of digital imaging are explored. *Prerequisites: Art 105 (except Communications majors/minors), or permission of the instructor.* Spring semester.

155 WCH Introduction to the History of Art - WRI
4 credits. **(Western Cultural Heritage Core Course)** A survey of the architecture, painting and sculpture of Western civilization from pre-history through the 14th century including the Paleolithic and Neolithic eras, the Ancient Near East, Egypt, Ancient Greece and Rome, and the Middle Ages. *This course also fulfills the 100 level Cultural Heritage Art requirement of the 1990 Core program.* A Writing and Research Intensive course. Fall semester. Prof. P. Ricci.

157 WCH Introduction to the History of Art II - WRI
4 credits. **(Western Cultural Heritage Core Course)** A continuation of 155, the development of the fine arts in Europe from the 14th to the 20th centuries is traced, including the Renaissance, Baroque, Rococo, Neoclassical, Romantic and Modernist movements. *This course also fulfills the 100 level Cultural Heritage Art requirement of the 1990 Core program.* A Writing and Research Intensive course. Spring semester. Prof. P. Ricci.

204 Watercolor
3 credits. Studio painting with transparent medium on paper. An introductory course emphasizing basic techniques and exploration of the expressive qualities of the medium. *Prerequisite: Art 105*. Fall semester, even-numbered years. Prof. Shellenberg.

205 Painting
3 credits. Studio easel painting in opaque media, with stress on pictorial organization and application of color theories. *Prerequisite: Art 105. This course also fulfills the 200 level Creative Expression requirement of the 1990 Core program.* Fall semester. Prof. Shellenberg.

206 Ceramics II
3 credits. An intermediate-level course with emphasis on developing and refining studio techniques and integration of form and idea. *Prerequisite: Art 106*. Spring semester. Prof. Friedly.

210 Drawing II
4 credits. An intermediate-level course that stresses further conceptual, pictorial, and technical development beyond Drawing I, with an emphasis on personal theme and content. *Prerequisite: Art 105 or permission of the instructor.* Spring semester. Prof. Schellenberg.

230 American Art
4 credits. A survey of American painting, sculpture and architecture from the Colonial era through the 20th centure. Issues discussed include the artitsts' roles in representing national identity, the wilderness, the frontier and the city and the American contributions to photography, the moving picture, and the skyscraper. Fall semester, even-numbered years. Prof. P. Ricci.

250 Neoclassicism and Romanticism
4 credits. An in-depth study of European art and culture from 1750 to 1850 that examines the role of Neoclassicism and Romanticism in promoting social and political ideals, the aesthetics of the Beautiful and the Sublime, and cultural primitivism. *Prerequisites: Art 157, or permission of the instructor.* Fall semester, odd-numbered years. Prof. P. Ricci.

251 Printmaking I
3 credits. Practice in the methods of relief, intaglio, and monotype, and instruction in the use of the printer's machinery. Prerequisites: Art 105, or permission of the instructor. *This course also fulfills the 200 level Creative Expression requirement of the 1990 Core program.* Spring semester.

260 Modernism
4 credits. A history of the Modernist movement in painting, sculpture, architecture, design and film from 1870 to 1945. The course traces the revolutionary theories of Impressionism, Post-Impressionism, Expressionism, Cubism, Dada, Surrealism, Futurism and Supermatism. *Prerequisites: Art 157, or permission of the instructor.* Spring semester, even-numbered years. Prof. P. Ricci.

270 Art of Africa, Asia, and the Americas
4 credits. A survey of the artistic traditions of Africa, Asia, the Pacific Islands, and the Pre-Columbian civilizations of North and South America examined within their historical context. Topics include cultural exchanges between Western and Non-Western civilizations and the impact of trade, war and colonization on indigenous artistic traditions. Spring semester, odd-numbered years. Prof. P. Ricci.

305 Painting II
3 credits. An intermediate level course with emphasis on developing and refining technique and concept. A continuation of the formal issues surrounding color and composition presented in Art 205. *Prerequisite: Art 204 or 205*. Spring semester. Prof. Schellenberg.

320 Sculpture II
3 credits. A continuation of Art 120 with further exploration of possible three-dimensional mediums and development of the methods used for traditional, modern and contemporary sculpture. *Prerequisite: Art 120.* Fall semester. Prof. Friedly.

352 Printmaking II
3 credits. A continuation of Art 251 with further exploration in the methods of relief, intaglio, and monotype printmaking and further instruction in the use of the printer's machinery. *Prerequisite: Art 251.* Spring semester, as needed.

371-379 Special Topics
Variable credit. This sequence of courses permits the Department to offer courses to any group of students who express an interest in a particular area of study that is not a regular part of the curriculum.

401 Advanced Studies in Ceramics
3 credits. Advanced study with emphasis on conceptual, pictorial, thematic, and technical development. *Prerequisite: permission of the instructor.* Spring semester. Prof. Friedly.

402 Advanced Studies in Drawing
3 credits. Advanced study with emphasis on conceptual, pictorial, thematic, and technical development. *Prerequisite: permission of the instructor.* Spring semester. Prof. Schellenberg.

403 Advanced Studies in Painting
3 credits. Advanced study with emphasis on conceptual, pictorial, thematic, and technical development. *Prerequisite: permission of the instructor.* Spring semester. Prof. Schellenberg.

404 Advanced Studies in Printmaking
3 credits. Advanced study with emphasis on conceptual, pictorial, thematic, and technical development. *Prerequisite: permission of the instructor.* Spring semester.

405 Advanced Studies in Sculpture
3 credits. Advanced study with emphasis on conceptual, pictorial, thematic, and technical development. *Prerequisite: permission of the instructor.* Fall semester. Prof. Friedly.

470-479 Internships.
Variable credit. This sequence of courses permits the Department to offer internships to students in the art history major or minor, or to majors in studio art recommended by the Department.

480-489 Independent Studies in Art
4 credits. Individual student are provided the opportunity to pursue work in an area of major interest under the guidance of a member of the Department. *Prerequisite: Approval of Department chair and the Independent Study Committee.*

498 Senior Seminar/Portfolio
3 credits. A capstone course required by all majors that provides opportunities for advanced research and development in studio and gallery/museum related work. The course builds and enhance the resumé and introduces the practical functions, operations, and workings for a career in art. Offered as needed. Prof. Friedly.

Music

The music unit provides opportunities for all Elizabethtown College students to study and experience music at all levels. Music majors are chosen through an audition/interview process in which their performance and listening skills as well as their aptitudes for their prospective majors are tested. All music majors develop the performance and listening skills necessary to become musicians, and are well-grounded in music history, theory, and literature. Specific professional skills are developed by the majors in music education and music therapy, while liberal arts majors are introduced to a broad spectrum of knowledge about music. All students are prepared for potential graduate study in an area of their choice. Elizabethtown College is an accredited institutional member of the National Association of Schools of Music.

Majors

The Department has adopted requirements for junior standing for music majors. A copy of these requirements is available in the Department office.

The **Music Education major** requires Music 100 (7 semesters), 101, 102, 103, 104, 110, 111 or 133, 117, 118 or 268, 119, 121, 122, 130, 132, 203, 204, 205, 217, 218, 221, 230, 231, 232 or 239, 233, 234, 237, 238 or 120, 240, 321, 322, 330, 331, 332, 333, 334, 343, 344, 433, 434, 440, 471, 491, 499; a minimum of eight additional credits of applied music study, two semesters of Mu 363 and a seven semesters of participation in other ensemble(s), a senior recital, proficiency examinations in piano, voice and guitar, and Education 105, 150, 215, 380 and 490. Upon completion of this degree program, students are eligible to obtain the Pennsylvania Instructional I Teaching Certificate. The music education major is approved by the Pennsylvania Department of Education.

The **Music Therapy major** requires Music 100 (8 semesters), 101, 102, 103, 104, 110, 111 or 117, 118 or 268, 119 or 275, 121, 122, 131, 150 (8 semesters), 151, 152, 203, 204, 205, 217, 218, 236, 241, 253, 254, 255, 321, 332, 351, 355, 356, 357, 358, 454, 457, 458, 459, 479, and 499; a minimum of eight additional credits in applied music instruction; a senior recital; a minimum of five credits in ensemble; and proficiency exams in piano, voice, and guitar. Also required are Psychology 221 and 225. Specific courses to be included in the student's Core program are Biology 101 or 111, Biology 201, Mathematics 251, and Psychology 105.

An approximately six-month long internship in an approved clinical facility is required for the music therapy degree and is taken after the completion of the four-year music therapy program. Upon completion of this degree program, students are eligible to sit for the Music Therapy Certification Board examination leading to Board Certification as a Music Therapist. The music therapy program is approved by the American Music Therapy Association.

A **Music Therapy or Music Education major** may not enroll in a course required for that major unless a grade of C- or better has been earned in all prerequisite courses. In order to graduate, a Music Therapy or Music Education major must maintain the following standards:

1. A Music Therapy major must earn a grade of C- or better in all music and music therapy courses. A Music Education major must earn a grade of C- or better in all music and music education courses as well as in Education 105 and 490.

2. A Music Therapy major must satisfy the standards and requirements in all field work education, including clinical practicums and the internship. A Music Education major must satisfy the standards and requirements of the educational practicum and student teaching experiences.

The requirements for the **Bachelor of Arts degree in Music** are flexible and are determined by the needs and interests of each student. Under the guidance of a departmental advisor, each student designs a program which includes 54 credits of music courses, but must include the following: Music 100 (8 semesters), 101,

102, 103, 104, 110, 111 or 117, 118 or 268, 121, 122, 203, 204, 217, 218, 221, 321, 499; eight credits in applied music, a senior recital, and three credits of ensemble. The student must complete Modern Language 112 (or a higher course if so placed by testing).

Minor

The **Music minor** provides students with opportunities to acquire and develop skills in music theory, music performance, music history and literature. The Music minor requires Music 101-103 or 305, 110, 121; 441 or 205 or 242 or 243; four credits of instruction on one instrument or in voice, with registration in Music 100 (Repertoire Class) in each of the same semesters; and minimum of four credits of music ensemble participation. *A student electing to minor in music must consult with the department chair who assigns a music faculty member to assist the student's academic advisor as necessary.*

The Department has a **Preparatory Division** which offers instruction to pre-college students, adults, and college students who desire to take instruction without credit. Instruction is available from departmental faculty and other qualified teachers. Interested persons should contact Prof. Grant Moore, director of the Preparatory Division.

100 Repertoire Class
0 credit. This class provides performance opportunities for students in applied music. It meets for 1 hour each week and is required for all music majors and minors who are enrolled for applied music instruction. Prof. Harrison

101 Theory of Tonal Music I
3 credits. The two semesters of Theory of Tonal Music deal with the construction and analysis of common-practice music from around 1700 to 1900. The first semester begins with norms of four-part harmony and melodic/harmonic constructs. Diatonic harmonic and closely-related modulation norms are covered as well as binary and tenary forms. *Prerequisite: Music 110*. Spring semester. Prof. Au.

102 Theory of Tonal Music II
3 credits. The two semesters of Theory of Tonal Music deal with the construction and analysis of common-practice music from around 1700 to 1900. In this second semester, emphasis is placed on advanced chromaticism and modulation, and extended tertian harmony. Forms studied include theme and variation, sonata, and rondo. An overview of fugal procedures is included. *Prerequisite: Music 101*. Fall semester. Prof. Au.

103 Fundamentals of Sight Singing and Training
1 credit. Music reading and ear training according to the Kodaly concept using syllables based on moveable "Do," kinesthetically reinforced by hand signs. Study and drill in rhythm will include the use of the basic beat patterns. Linear dictation

including rhythmic elements. Aural skills related to theoretical analytical materials covered in Music 101. *Corequisite: Music 101*. Spring semester. Prof. M. Fritz.

104 Sight Singing and Ear Training
1 credit. A continuation of Music 103 including chromaticism, modulation, modes and more difficult rhythms and intervals, C clefs. *Prerequisite: Music 103, or permission of the instructor.* Fall semester. Prof. M. Fritz.

105 WCH Introduction to Music Literature
4 credits. **(Western Cultural Heritage Core Course)** Introduction to the music of the Western world, major composers, and selected famous compositions, with emphasis on listening to music from the Baroque era to the present. *This course also fulfills the 100 level Cultural Heritage Music requirement of the 1990 Core program.* Profs. Au, Zurfluh, Smith.

110 Basic Musicianship
3 credits. An introduction to basic theoretical concepts, terms, and aural skills essential to becoming a professional musician. An overview of Western music history including styles, genre, selected composers and specific works are included. Fall semester. Prof. Haines.

111 Voice Class
1 credit. The fundamentals of breath control, tone production, and development of vocal technique. Open to all students. Fall semester. Prof. M. Fritz.

115 CE Music Fundamentals at the Keyboard
4 credits. **(Creative Expression Core Course)** Basic skills in producing and reading music at the keyboard with attention to ear training, basic keyboard technique, and musicianship, as well as to sight reading. The Department's digital piano laboratory is utilized. Daily practice is required. *This course also fulfills the 100 level Creative Expression requirement of the 1990 Core program.* Spring semester. Prof. Au.

117 Piano Class I
1 credit. Basic piano skills. Required of all music majors whose first applied instrument is not piano. *Prerequisite: music major. The Department reserves the right to offer this course as private lessons if fewer than five students are enrolled.* Fall semester. Prof. Ronning.

118 Piano Class II
1 credit. A continuation of Music 117, including more difficult harmonic progressions and technical skills. Required of all music majors whose first applied instrument is not piano. *Prerequisite: music major. The Department reserves the right to offer this course as private lessons if fewer than five students are enrolled.* Spring semester. Prof. Ronning.

119 Guitar Class
1 credit. An introductory course emphasizing studies in basic chords and note reading. Course also surveys various guitar styles, the performers, music, and types of guitars. *The Department reserves the right to offer this course as private lessons if fewer than five students are enrolled.* Fall semester. Prof. Cullen.

120 Guitar Class
1 credit. A continuation of Music 119 with emphasis on bar chords, accompaniment patterns, and note reading. Includes an introduction to classical guitar technique, history, performers, and classical literature. *Prerequisite: Music 119, or permission of the instructor. The Department reserves the right to offer this course as private lessons if fewer than five students are enrolled.* Prof. Cullen.

121 History of Tonal Music I
2 credits. A broad study of the technical, stylistic, and social/historical developments related to Western music and musicians beginning around the year 1700, towards the end of the Baroque Era, and continuing to the end of the eighteenth century. Examples of music and styles being discussed are ever present. As much as possible, this study is coordinated with the study of Tonal Theory in Music 101. *Prerequisite: Music 110. Corequisite: Music 101.* Spring semester. Prof. Kun.

122 History of Tonal Music II
2 credits. A broad study of the technical, stylistic, and social/historical developments related to Western music and musicians during the nineteenth century. Examples of music and styles being discussed are ever present. As much as possible, this study is coordinated with the study of Tonal Theory in Music 102. *Prerequisite: Music 121. Corequisite: Music 102.* Fall semester. Prof. Harrison.

130 Introduction to Music Education
1 credit. This course is the future music educator's first exposure to the profession. Students begin to explore the role of teacher through peer teaching episodes and observations of practicing music educators. Print and electronic resources available to music educators are also investigated. Fall semester. Prof. Smith.

132 Foundations of Music Education
1 credit. Students study the history of general and music education in the United States and philosophical influences on the profession. Spring semester. Prof. Smith.

133 Diction for Singers
1 credit. Students are enabled to sing standard repertoire in English, Italian, German, French, Latin and Spanish with correct pronunciation. *Prior knowledge of the International Phonetic Alphabet or permission of the instructor is required.* Fall semester.

150 Professional Seminar
1 credit. A weekly seminar for music therapy majors. Guest speakers, faculty, and students present topics of mutual interest, including career development, application of music skills, and professional service. *Required of music therapy majors each semester.* Prof. Behrens.

151 Introduction to Music Therapy
2 credits. An introduction to the field of music therapy. Topics include thoretical, historical, and sociological rationale supporting the field and an overview of basic clinical practice and research methods. Emphasis is on a broad knowledge of the field resulting in a generalized understanding of the current state of practice and research. Clinical observation and in-class simulations are included with emphasis given to two populations as the semester progresses. Hours: 2 lecture, 1 laboratory *Prerequisite: Music major, or permission of the instructor.* Fall semester. Prof. Dinsmore.

152 Music Therapy and Clinical Populations
2 credits. The use of music therapy within various clinical populations is emphasized. Content includes a survey of a variety of populations with whom music therapists, focusing on the characteristics and needs of each group, general treatment approaches, and methods for incorporating music therapy. Students complete their first pre-practicum experience, observing one clinical experience throughout the semester. Hours: 2 lecture, 1 laboratory. *Prerequisite: Music 151.* Spring semester. Prof. Dinsmore.

203 Advanced Sight Singing and Ear Training
1 credit. Continued emphasis on reading and dictation skills with concentration on modulation and chromaticism using some 20th-century material. C clefs. *Corequisite: Music 201.* Spring semester. Prof. Kun.

204 Advanced Sight Singing and Ear Training
1 credit. A continuation of Music 203 with concentration on reading atonal melodies and 20th-century material. Fall semester. Prof. Kun.

205 NWC Music of Non-Western Cultures
4 credits. **(Non-Western Cultural Heritage Core Course)** Contemporary music indigenous to eight non-Western geographic regions of the world are studied and compared in terms of tonal and rhythmic attributes, and as an approach to promoting sociocultural awareness. *This course also fulfills the 200 level Foreign Culture International Studies requirement of the 1990 Core program.* Prof. Smith.

217 Keyboard Harmony I
1 credit. Scale harmonizations, modal harmonizations, figured bass realization, and transposition of simple instrumental melodic lines. *Prerequisite: Music 118, Piano Class II or permission of the instructor.* Fall semester. Prof. Ronning.

218 Keyboard Harmony II
1 credit. A continuation of Music 217 involving further scale harmonizations, modulations, transpositions, and emphasizing a variety of accompaniment styles. *Prerequisite: Music 217, Keyboard Harmony I.* Spring semester. Prof. Ronning.

221 Twentieth-Century Music
3 credits. A study of the compositional techniques, materials, history, and styles of Western music in the twentieth century. Specific important composers and selected works of music and social/historical developments related to Western music will be the central focus. *Prerequisite: Music 102.* Spring semester. Prof. Haines.

230 Music Teaching and Learning
2 credits. Students discover how children learn music and the role of Music Learning Theory in facilitating that process. Peer teaching and school observations will be an integral part of the course experience. Fall semester. Prof. Smith.

231 Brass I
1 credit. This course will provide an overview of pedagogy for all brass instruments. Methods of tone production, fingerings or positions, care and repair, and methods and materials for teaching all brass instruments will be explored. Emphasis this semester will be on trumpet/cornet and trombone. *The Department reserves the right to offer this course as private lessons if fewer than five students are enrolled.* Fall semester. Prof. Moore.

233 Music Curriculum and Assessment
2 credits. An introduction to the future music educator to the process of curriculum development and the assessment of music teaching and learning. Model curricula based on national and state standards are reviewed. Standardized and teacher-designed tests are examined for their applicability to curriculum assessment. Students design a one-year-curriculum and plan accompanying assessments. Spring semester. Prof. Smith.

234 Percussion Class
1 credit. Methods of tone production, care and repair, and methods and materials for teaching snare drum, cymbals, timpani, and other percussion instruments. *The Department reserves the right to offer this course as private lessons if fewer than five students are enrolled.* Spring semester. Prof. Fitz.

236 Percussion for Music Therapy
1 credit. Students learn to play, teach, and care for snare drum, trap set, barrel type drums, frame drums, and auxiliary percussion instruments. Individual and small ensemble performances are an integral part of this course and discussions about incorporating the skills and concepts into music therapy sessions. Spring semester.

237 String Class I
1 credit. Method of tone production, fingerings, care and repair, and methods and materials for teaching violin and cello in individual and class settings. *The Department reserves the right to offer this course as private lessons if fewer than five students are enrolled.* Fall semester. Prof. Kun.

239 Vocal Pedagogy
1 credit. An introduction to the fundamentals of teaching singing. Students examine the physiology of the voice, vocal sound production, care of the voice, teaching techniques and other related topics. Spring semester.

240 Conducting Laboratory
0 credits. Students become familiar with standard instrumental and choral repertoire and observe advanced conducting techniques by serving as a laboratory ensemble for Music 322 (Conducting II). Profs. M. Fritz, Kun.

241 Music Therapy Methods and Techniques I
4 credits. The development of music and non-music skills and concepts related to conducting entry-level music therapy sessions. Emphasis is on the development and application of assessment and observation skills, treatment planning and implication, leadership, documentation, and music performance skills in therapeutic settings. Includes lecture and clinical experiences. *Prerequisite: Music major, or permission of the instructor.* Fall semester. Prof. Behrens.

242 Mozart and Eighteenth-Century Classicism
3 credits. Study of a symphony, and sonata, a string quartet, several concerti, lieder, an opera, masses and other sacred choral works by Mozart provides understanding of how the composer exemplified eighteenth-century classicism in his music. Not offered 2004-2005.

243 Beethoven, Classicism and Romanticism
3 credits. A study of the life and works of Ludwig van Beethoven. Students develop an understanding of the intellectual and emotional choices made by Beethoven in his creative process and the historical and cultural environment in which those choices were made. Not offered 2004-2005.

253 Music Therapy Methods and Techniques II
3 credits. A continuation of Music 241 involving the further development of non-music and music skills and concepts related to conducting entry level music therapy sessions. Includes the study of behavioral techniques, beginning counseling interaction skills, an other music and non-music methods and techniques employed within a music therapist's clinical work. Hours: 3 lecture, 1 laboratory. *Prerequisite: Music 241.* Spring semester. Prof. Behrens.

255 Arranging and Composing for the Clinic
2 credits. Arranging and composing music for a range of music therapy situations is covered with emphasis placed on use of nonsymphonic instruments, and voice in varied therapeutic contexts. *Prerequisite: MU102.* Spring semester. Prof. Haines

290 Composition
1 credit. Development of skills in composing. Emphasis on creation of original works for a variety of media with performance as final product. Can be taken repeatedly for credit. *Prerequisites: Music 101 and permission of the instructor. For enrollment beyond two terms, Music 419 is required.* Prof. Haines.

305 Teaching Music in the Elementary Classroom
4 credits. Provides students opportunities to develop skills in singing, song leading, listening, creating, and performing. Emphasizes applying knowledge and skills to provide musical experiences for young children and work with music specialists. Includes observation of music instruction and performance. Not offered 2003-2004 academic year. Prof. Smith.

321 Conducting I
2 credits. Instruction in the fundamentals of conducting. Topics include conducting techniques, instrumental and choral methods and problems, score reading, and interpretation. *Prerequisites: Music 202 and 203 or permission of the instructor.* Fall semester. Prof. M. Fritz

322 Conducting II
2 credits. A continuation of Music 321. *Prerequisite: Music 321.* Spring semester. Prof. Kun.

330 General Music Methods and Materials
2 credits. Preparation for students to teach elementary, middle and high school general music classes. Students are expected to plan and deliver general music lessons, interpret and apply contemporary music education pedagogies and develop a reflective process to evaluate the effectiveness of their teaching and plan for improvements. Fall semester. Prof. Smith.

331 General Music Field Experience
1 credit. Practical application of the skills learned in Music 330. Observations and field placement in a general music setting is required. Fall semester. Prof. Smith.

332 Music Technology
1 credit. Students develop and practice skills in music technology. Students review current trends in music Computer Aided Instruction, develop skills in the use of audio and video recording equipment and gain expertise in the use of various music production-related software and computer data bases. Spring semester. Prof. M. Fritz.

333 Choral Music Methods and Materials
2 credits. Students learn to select, analyze and prepare appropriate choral literature. Future choral directors are expected to demonstrate proper vocal technique, appropriate strategies for guiding singers in a choral rehearsal and knowledge of administrative activities specific to choral directors. Spring semester. Prof. M. Fritz.

334 Choral Music Field Experience
1 credit. Practical application of the skills learned in Music 333. Observations and field placement in a general music setting will be required. Spring semester. Prof. M. Fritz.

343 Woodwind Class
1 credit. Methods of tone production, fingerings, maintenance, care and repair, and methods and materials for teaching flute, oboe, clarinet, bassoon, and saxophone. *The Department reserves the right to offer this course as private lessons if fewer than five students are enrolled.* Fall semester. Prof. Shiffer.

351 Clinical Improvisation
2 credits. kills in musical improvisation in the therapeutic setting are developed. The major focus of the course is vocal and piano improvisation with some emphasis on guitar and percussion improvisation. *Music Therapy Majors only.* Prof. Haines. Not offered 2004-2005.

357 Music Therapy Methods and Techniques: III
3 credits. A study of various philosophies and practices of music therapy as related to the implementation of music therapy within specific clinical populations and preparation for clinical internship. Emphases is on the integration of the knowledge and skills associated with the practice of music therapy, verbal interaction skills, and interviewing for internships. *Prerequisites: Music 241 and 253.* Fall semester. Not offered 2004-2005. Prof. Behrens.

358 Psychology of Music and Research Methods I
3 credits. Beginning with a brief introduction to the research literature that the students read and an overview of the research process, students then examine the literature on various topics related to acoustics and the psychology of music while discussing how the information applies to the practice of music therapy. Students

review the literature on topics related to their chosen future research study that will be conducted the following semester. *Prerequisites: MU 151, 152, Mathematics 251; Biology 101 and 201*. Spring semester. Not offered 2004-2005. Prof. Behrens.

371-379 Special Topics
Variable credit. This sequence of courses permits the Department to offer courses to any group of students who express an interest in a particular area of study that is not a regular part of the curriculum.

419 Counterpoint
2 credits. A study of contrapuntal techniques of the sixteenth through twentieth centuries through representative composers and original compositions. *Prerequisites or corequisites: Music 221 and 204*. Spring semester. Prof. Au.

431 Piano Methods and Materials
2 credits. Modern methods in teaching piano to children, youth, and adults. Course includes a survey of teaching materials for various stages of progress, teaching demonstrations, and experience. Credit for Music 431 is given only upon completion of Music 432. *Prerequisites: Two semesters of Music 269*. Not offered 2004-2005 academic year.

432 Piano Methods and Materials
2 credits. A continuation of Music 431. *Prerequisite: Music 431*. Not offered 2004-2005 academic year.

433 Instrumental Music Methods and Materials
2 credits. The development of instrumental teaching skills for individual, small group and ensemble instruction will be the focus of this course. Philosophical considerations related to the role of instrumental music education and applications of Music Learning Theory provides the framework for this course. Selection of appropriate method book materials, ensemble literature and materials, rehearsal planning and techniques, and the development of a curricular approach to performance ensembles will be emphasized. Fall semester. Prof. Kun.

434 Instrumental Music Field Experience
1 credit. This course will provide practical application of the skills learned in Music 433. Observations and field placement in a general music setting will be required. Fall semester. Prof. Kun

440 Arranging
2 credits. Arranging music for large and small ensembles; class performance of student works is combined with a study of the characteristics of each standard instrument and instrumental group. *Prerequisites: Music 204, 221*. Profs. Au, Haines.

441 History of Early Music
3 credits. A broad chronological study of the technical, stylistic, and social/historical developments related to Western music and musicians beginning with the music of the ancient Greek civilizations and especially emphasizing the development of polyphony until about the year 1700. Recorded and printed examples of the music and styles being discussed are ever present. *Prerequisites: Music 110, Basic Musicianship or permission of the instructor.* Spring semester. Prof. Haines.

454 Psychology of Music and Research Methods II
3 credits. This course is a continuation of Music 358. Students will develop a more specific understanding of the concepts involved in conducting, reading, and evaluating research in music therapy. Students will apply the concepts to the studies they designed the previous semester while conducting these studies. A few topics related to acoustics and the psychology of music also are included. *Prerequisite: Music 358*. Fall semester. Not offered 2004-2005. Prof. Behrens.

254, 355, 356, 457, 458 Practical Experiences I-V: Music Therapy
1 credit each. Supervised field experiences (observation and participation) in an approved clinical facility. A minimum of thirty hours for each clinical experience is required. Music therapy majors only. *Prerequisites: Music 151, 152, and 241, and a pass on the Pre-clinical proficiency assignment.*

459 Music Therapy Methods and Techniques IV
3 credits. A study of various philosophies, theories, and practices as related to the implementation of treatment within music therapy. Emphasis is on the integration of the theories and concepts/skills associated with various music and non-music methods and techniques to the practice of music therapy as well as professional employment issues. *Prerequisites: Music 241, 253, and 357*. Not offered 2004-2005. Prof. Behrens.

471 Professional Internship in Music Education
12 credits. Teaching experience and observation in elementary and secondary music classes. Instrumental and vocal emphases vary with student strengths and needs. *Prerequisite: permission of department.* Graded Pass/No Pass. Profs. Smith, Kun.

479 Professional Internship in Music Therapy
0 credit. An approximately six-month long supervised practical experience with a board certified registered music therapist in an AMTA approved facility. Total number of clinical training hours must equal 1200. Taken only after completion of all other music therapy degree requirements. *Prerequisite: permission of the instructor or department.* Graded Pass/No Pass. Prof. Behrens.

481-489 Independent Study
Variable credit. Individual students are offered opportunities for musical composition, arranging, performance or research under faculty supervision. *Prerequisite: Approval of Department chair and Independent Study Committee.*

491 Student Teaching Seminar
0 credits. A forum for students to discuss and analyze issues pertinent to their current student teaching experience and those relevant to their future profession. Interview techniques, Pennsylvania State Department of Education requirements and other topics proposed by the class will comprise the course content. Profs. Smith, Kun.

499 Seminar in Musicology
2 credits. A capstone course for all music majors offering experience in the techniques of research about music, including bibliography, analysis of materials, and communication of conclusions. A substantial research project is required. *Prerequisites: Junior standing in music; completion of all music courses in basic musicianship: Music 122, 204, 205, 218, and 221.* Fall Semester. Prof. Haines.

Applied Music and Ensembles

Students who register for applied music for credit must meet minimum standards established by the Department and should contact the Department office for a list of standards for each applied area. Students who have not attained the level necessary for credit may study through the Preparatory Division. Students in applied music advance as rapidly as their abilities permit. They must study technical exercises and literature from various musical periods and styles.

Students may register with or without credit for the established music ensembles and for other ensembles organized under faculty supervision; ensemble registration for credit may be repeated. All students must meet the standards for attendance at rehearsals and public performances established by the faculty directors.

Applied music lessons and certain music ensembles may be counted for the Creative Expression requirement of the 2003 Core program if taken for four semesters. *Applied music lessons will also fulfill the 100 level Creative Expression requirement of the 1990 Core program if taken for three semesters.* An additional fee is charged for Applied Music Lessons. Fees are printed on the Master Course Schedule.

268 CE Voice
1 credit. **(Creative Expression Core Course)** Profs. Drackley, Mekeel.

269 CE Piano
1 credit. **(Creative Expression Core Course)** Music majors whose principal instrument is not piano or organ must enroll in Music 117 before Music 269. Profs. Harrison, Kurtz, Ronning, Au.

270 CE Organ
1 credit. (**Creative Expression Core Course)** Prof. Kurtz.

271 CE Violin
1 credit. **(Creative Expression Core Course)** Prof. Esmilla.

272 CE Viola
1 credit. (**Creative Expression Core Course)** Prof. Esmilla.
273 CE Cello
1 credit. **(Creative Expression Core Course)** Prof. Zurfluh.
274 CE String Bass
1 credit. **(Creative Expression Core Course)** Prof. Zurfluh.
275 CE Guitar
1 credit. **(Creative Expression Core Course)** Prof. Cullen.
276 CE Flute
1 credit. **(Creative Expression Core Course)** Prof. Dooley.
277 CE Clarinet
1 credit. **(Creative Expression Core Course)** Prof. Shiffer.
278 CE Oboe
1 credit. (**Creative Expression Core Course)** Prof. Marchione.
279 CE Bassoon
1 credit. **(Creative Expression Core Course)** Prof. Ober.
280 CE Saxophone
1 credit. **(Creative Expression Core Course)** Prof. Shiffer
281 CE Trumpet
1 credit. **(Creative Expression Core Course)** Prof. Laudermilch.
282 CE French Horn
1 credit. **(Creative Expression Core Course)** Prof. Staherski.
283 CE Trombone
1 credit. **(Creative Expression Core Course)** Prof. Moore.
284 CE Baritone/Euphonium
1 credit. **(Creative Expression Core Course)** Prof. Moore.
285 CE Tuba
1 credit. **(Creative Expression Core Course)** Prof. Moore.
286 CE Percussion
1 credit. **(Creative Expression Core Course)** Prof. Fitz.

360 Chamber Music
1/2 credit. General chamber music course from which groups such as Brass Ensemble, Wind Ensemble, String Ensemble, Woodwind Ensemble, Chorale, Piano Trio, and Piano Ensemble are formed as need arises. Graded Pass/No Pass.

361 CE Concert Choir
1 credit. **(Creative Expression Core Course)** Acceptance based upon auditions by appointment. Several performances on campus each year, and this group sings concerts in churches and schools on its annual tour. *This course will not fulfill the 100 level Creative Expression requirement of the 1990 Core program.* Prof. M. Fritz.

363A CE Elizabethtown College - Community Chorus
1 credit. **(Creative Expression Core Course)** Vocal ensemble open to any member of the student body and local community without audition. Literature performed will include works from the standard choral repertoire, contemporary selections and music of varying cultures and periods. *This course will not fulfill the 100 level Creative Expression requirement of the 1990 Core program.* Profs. M. Fritz, C. Fritz.

365 CE Orchestra
1 credit. **(Creative Expression Core Course)** Open to all qualified students; acceptance subject to approval by director. Presentation of several concerts during the year. String, chamber, and full orchestra music is performed. Prerequisite for winds and percussion: permission of the instructor. *This course will not fulfill the 100 level Creative Expression requirement of the 1990 Core program.* Prof. Zurfluh.

368 Jazz Lab
1/2 credit. Small groups of students are offered instruction in the basic skills of improvisation, stylization, and performance. The lab complements the jazz component of the Concert Band. *This course will not fulfill the 100 level Creative Expression requirement of the 1990 Core program.* Graded Pass/No Pass. Prof. Moore.

369 CE Symphonic Band
1 credit. **(Creative Expression Core Course)** Open to all qualified students; acceptance subject to approval by director. Performances include the annual winter and spring concerts and a number off-campus appearances. *This course will not fulfill the 100 level Creative Expression requirement of the 1990 Core program.* Prof. Kun.

Theatre

The theatre programs base their curricula on a liberal arts foundation, requiring a series of "theatre core" courses followed by a concentration in either performance studies or theatre technology. Students have multiple opportunities to enhance classroom training with practical experiences.

Major

The **Theatre major** requires Theatre 105, 110, 155, 165, 256, 320, 340, 405; one course from Theatre 240, English 104 **(Drama only)** or 403; two semesters of Theatre 350 or 360. In addition, the **Performance concentration** requires Theatre 265, 365 and Dance 101; the **Theatre Technology concentration** requires 6 hours of Theatre 355 (initially taken for 4 credits and repeated for 2) and Art 105. The credits required for the major total 44-45.

Minor

The **Theatre minor** requires Theatre 105,155, 165, Dance 101; one course from English 313, 403, or Theatre 240, or 340. In addition, the **minor performance**

track requires Theatre 265 or 320 and 2 semesters of Theatre 360; the **minor technical track** requires Theatre 256 or 355 and 2 semesters of Theatre 350. The credits required for the minor total 24.

105 HUM Introduction to Theatre - WRI
4 credits. **(Humanities Core Course)** An introduction to the various interrelated arts and disciplines that make up theatre performance and production, such as acting, playwriting, directing and design. Emphasis is on history, literature and theory as realized in performance. Text provides a common language for discussion, and further support is drawn from videos, script analysis and play attendance. *This course also fulfills the 100 level Cultural Heritage Theatre requirement of the 1990 Core program.* A Writing and Research Intensive Course. Profs. Sevareid, Taylor.

110 Theatre History
3 credits. A survey of Western Theatre from its roots in ritual and the Greek dithyrambos through and including 18th- and 19th-century Romanticism. Spring semester. Prof. Sevareid.

155 Introduction to Theatre Technology I
4 credits. A focus upon the areas of scenic and lighting technology for the theatre. Students develop an understanding of the principles of design and execution for scenery and lighting, with the greatest emphasis placed upon the development of basic skills and techniques. Multiple hands-on projects and labs afford opportunities to link cognitive and affective learning in practical applications. A weekly 2 hour lab is required for all enrolled students. *This course also fulfills the 100 level Creative Expression requirement of the 1990 Core program.* Fall semester. Prof. Taylor.

165 CE Acting I
4 credits. **(Creative Expression Core Course)** Theory and practice of the art and craft of the stage actor are addressed. Skills are developed in voice, body movement, script analysis, style and theory. Students participate in projects requiring the memorization, creation and presentation of scenes. *This course also fulfills the 100 level Creative Expression requirement of the 1990 Core program.*

240 Playwriting
3 credits. The study of the tools and techniques of creative writing for the theatre. Students will develop scripts which will be staged through in-class readings and presentations. Alternate Fall semesters. Prof. Sevareid.

255 Introduction to Theatre Technology II
4 credits. A focus upon the costume and makeup technology for the theatre. Students develop an understanding of the principles of design and the execution of clothing and makeup for production, with the greatest emphasis placed upon the development of skills and techniques. A general understanding of costume

history serves as the springboard for multiple hands-on projects and labs. A weekly 2-hour lab is required for all enrolled students. Spring semester. Prof. Taylor.

265 Acting II
4 credits. This is a second-level course in acting techniques and styles. Students will study, interpret and perform scenes from seminal texts in theatre history, Greeks to the Post Modernists. *Prerequisite: Theatre 165*. Alternate Spring semesters. Prof. Sevareid.

320 Directing for the Theatre
4 credits. A focus on the technique and practice of directing for the theatre. Students analyze dramatic literature with respect to historical context, structure and performance conceptualization. Directing methods are explored, as are the use of space, staging, rhythm, tempo and pace. Students put theory into practice directing a one-act play at the end of the semester. *Prerequisites: Theatre 105 and 165*. Fall semester. Not offered 2004-2005. Prof. Sevareid.

340 20th-Century American and British Drama
3 credits. A study in comparative drama and theory of the 20th century- from symbolic and literary realism through expressionism and absurdism to the eclectic work of post modern theatre. *Prerequisite: Theatre 105*. Alternate Spring semesters. Prof. Sevareid.

350 Design and Production Practicum
1 credit. An opportunity for students to earn credit for significant design and production work. Students work on projects ranging from lighting, costume or scenic design to stage management, master electrician or public relations. Prof. Taylor.

355 Theatrical Design Studio
4 credits. (repeatable for 2 additional credits). The primary design component of the theatre major, it addresses the elements of design and composition in the areas of scenery, lighting and costume design. Projects in drafting, rendering and model construction afford students the opportunity to test theory with practice, with each student completing a final project in one design area. *Prerequisites: Theatre 155 or 255, or permission of the instructor*. Spring semester. Not offered 2004-2005. Prof. Taylor.

360 Performance Practicum
1 credit. An opportunity for students to earn credit for significant performance work. Students work under the supervision of the faculty director for one of the program's productions. Prof. Sevareid.

365 Acting III
4 credits. A third-level course in the acting sequence, which emphasizes the study of character development and continued expansion of the student's acting repertoire through classroom presentations. *Prerequisites: Theatre 165 and 265*. Alternate Spring semesters. Not offered 2004-2005. Prof. Sevareid.

371-379 Special Topics
Variable credit. This sequence of courses permits the Department to offer courses to any group of students who express an interest in a particular area of study that is not a regular part of the curriculum.

405 Senior Project in Theatre
2 credits. A capstone course for the major, it is intended to be completed in the student's area of concentration. For some students, it will be a realized project in acting, design or direction. For others, it may be a hypothetical, but otherwise complete project in one of the above areas. The option also exists for students to complete this project as a research/writing endeavor. *Prerequisite: all theatre core coursework and 50% of concentration coursework must be completed. Projects must be proposed the semester prior to their senior year.* Offered as needed.

481-489 Independent Study
Variable credit. Individual students are offered opportunities for advanced work in acting, directing, technical theatre or research under faculty supervision. *Prerequisite: Approval of Department chair and Independent Study Committee.*

Dance

101 CE Introduction to Modern Dance
2 credit. **(Creative Expression Core Course)** An introduction to modern dance techniques and aesthetics requiring athletic, creative and cognitive participation. Course work includes physical conditioning techniques, interpretive/creative movement experiences, and modern dance technique basics. Reading, discussion, writing, and viewing contemporary dance facilitate an overall appreciation of dance as an art form. *This course also fulfills the 100 level Physical Well Being requirement of the 1990 Core program.* Prof. Jenkins.

102 CE Introduction to Ballet
2 credit. **(Creative Expression Core Course)** A basic introduction to ballet technique including bar, center floor and traveling combinations. Class includes development of anatomically correct alignment and dance technique, dance conditioning, spatial clarity, coordination, rhythm, use of weight, time and space. Class work will include readings, discussions, viewing of dance films, short writing assignments and performances of rehearsed dance sequences. *This course also fulfills the 100 level Physical Well Being requirement of the 1990 Core program.* Fall semester. Prof. Jenkins.

103 CE Introduction to Jazz Dance
2 credit. **(Creative Expression Core Course)** Jazz dance techniques emphasizing a range of styles, incorporating the Limon technique, classical show jazz and funk. The emphasis is on interpretation and performance of these styles on a beginning level. Coursework includes full jazz warm-ups, classical technique/terminology as it applies to jazz, floor work, conditioning for jazz dance and performance of dance combinations center and across the floor. Class also includes reading, discussions, viewing and writing about jazz dance. *This course also fulfills the 100 level Physical Well Being requirement of the 1990 Core program.* Spring semester. Prof. Jenkins

202 CE Ballet II
2 credits. **(Creative Expression Core Course)** A continuation of Dance 102 including bar, center floor and traveling combinations. Development of increasingly complex anatomically correct alignment and dance technique, dance conditioning, spatial clarity, coordination, rhythm, use of weight, time and space. Class work includes readings, discussions, viewing dance films, short writing assignments and performances of rehearsed dance sequences. Spring semester. Prof. Jenkins.

203 CE Jazz Dance II
2 credits. **(Creative Expression Core Course)** Jazz dance techniques emphasizing a range of styles incorporating the Limon technique, classical, show, jazz and funk. The emphasis is on interpretation and performance of these styles on a more complex level. Coursework includes full jazz warm-ups, classical technique/terminology as it applies to jazz, floor work, conditioning for jazz dance and performance of dance combinations center and across the floor. Class also includes reading, discussion, viewing and writing about jazz dance. Fall semester. Prof. Jenkins.

Forestry and Environmental Management
See Interdisciplinary Programs, page 208.

French
See Department of Modern Languages, page 137.

General Science Certification
See Interdisciplinary Programs, page 214.

German
See Department of Modern Languages, page 137.

Department of History

Professor: Winpenny
Associate Professors: Brown, Kenley, G. Ricci (*Chair*)
Assistant Professors: Kokolus

Bachelor of Arts

The study of history is a valuable component of a liberal arts education as well as a vital link to our individual and collective heritage. Historians seek to identify those events and individuals in the past which inform and shape contemporary society. Through an understanding of how civilizations, cultures, and institutions have formed and evolved over time, we are able to better comprehend ourselves and the general human condition. "History teaches us so nearly," an English historian once remarked. "It is so deep a question of life and death, that we are bound to find our way through it, and to owe our insight to ourselves."

The Department's program is designed to prepare students for further study in a variety of disciplines including history, law, library science, museum studies, government, and theology. History is also an excellent preparation for careers in education, business, and government services.

The **History major** requires that a student satisfactorily complete 40 credits of course work in history: four credits in History 115 (or equivalent); eight credits in United States history; eight credits in European history; four credits in non-United States, non-European history courses; History 490, Independent Research in History (4 credits); and 12 credits of three history course electives. At least four courses must be taken at the 300 level. History majors must successfully complete a Modern Language course at the 112 level (or higher if so placed).

History is one of the major areas in the social studies major which prepares a student for certification to teach in secondary schools. Students with interest in this area should read the detailed descriptions in the interdisciplinary section of this catalog.

Combinations, which allow the student to major in history and to pursue training for other careers, are possible. For example, a student may major in history and also take a recommended program of courses in business. Consult with members of the department for other options in combination with communications, political science, or other program areas.

For a **History minor**, the student must successfully complete 20 credits of course work, composed of the following courses: History 115 and four history electives, of which at least two must be taken at the 300 level. Students with specific career or personal interests are encouraged to discuss these with the department chair.

The Department of History participates in the College Honors in the Discipline program. For guidelines and details as to requirements, the student should consult the department chair.

115 WCH Western Civilization - WRI
4 credits. **(Western Cultural Heritage Core Course)** An exploration of historical developments that dominated Western civilization from 1500 through the present. Emphasis is placed on the role of politics, economics, culture, religion, and ideology in shaping modern society in Europe and the United States. *This course also fulfills the 100 level Cultural Heritage History requirement of the 1990 Core program.* A Writing and Research Intensive Course.

201 HUM History of the United States to 1877 - WRI
4 credits. **(Humanities Core Course)** An examination of the major developments in U.S. history from the beginning to 1877. This course includes a discussion of interpretations of the American past. *This course also fulfills the 200 level Social World requirement of the 1990 Core program.* A Writing and Research Intensive Course. Fall semester. Profs. Brown, Winpenny.

202 History of the United States since 1877
4 credits. An examination of the major developments in U.S. history since 1877. This course includes interpretations of the American past. *This course also fulfills the 200 level Social World requirement of the 1990 Core program.* Spring semester. Profs. Brown, Winpenny.

208 Technology and Values in the American Experience
4 credits. An effort to understand the values implicit in the choices that have been made in substituting a newer technology for an older technology throughout American history. Transportation, systems of production, the generation of power, medicine, and armaments constitute areas of particular emphasis. *This course will fulfill the 200 level Values and Choice requirement of the 1990 Core program.* Prof. Winpenny.

210 WCH Europe Since 1870 - WRI
4 credits. **(Western Cultural Heritage Core Course)** An examination of major political, social, and cultural developments in Europe from 1870 to modern times. *This course also fulfills the 200 level Cultural Heritage History requirement of the 1990 Core program.* A Writing and Research Intensive Course.

212 HUM Race and Ethnicity in American History - WRI
4 credits. **(Humanities Core Course)** An analysis of the 19th and 20th century historical experiences of ethnic and racial groups in America with a focus on the value systems they brought to America and the American value system by which they and their children were judged after their arrival here. *This course also fulfills the 200 level Values and Choice requirement of the 1990 Core program.* A Writing and Research Intensive Course.

215 British History: Themes and Topics
4 credits. Beginning with the Saxon invasions and extending through the modern empire, themes in this course include English legal history, the common law and parliament; social and cultural life; the relation of England to Ireland, Scotland, and Wales; the English reformation, Civil War; military and naval history; and the consolidation of empire. *This course also fulfills the 200 level Cultural Heritage requirement in the 1990 Core program.*

301 Slavery and Race
4 credits. A comparative study of the history of slavery and its influence on present day race relations in selected white supremacist states.

302 Colonial/Revolutionary America
4 credits. An examination of the development of regional cultures in Colonial America giving way to a common republican identity in the Revolutionary era. Prof. Brown.

303 The Early Republic
4 credits. A study of American society in the Jeffersonian and Jacksonian periods. The course emphasizes the widening cultural and economic differences between the agrarian South and an increasingly industrial North. Prof. Brown.

304 The Civil War Era
4 credits. An examination of the political disintegration of the Union in the 1850's and the war between the states that followed. Particular attention is given to the causes and legacy of the conflict. Prof. Brown.

306 Recent History of the United States
4 credits. An intensive analysis of the vexing economic, political, social, and diplomatic forces responsible for shaping the American experience since 1900; conflicting interpretations are emphasized. Prof. Winpenny.

307 American Economic History
4 credits. The growth and development of the American economy and its impact on human welfare. Emphasis is placed on the role of the entrepreneur, particular businesses, industrialization, government policy, and labor. Agrarian endeavor and slavery, and periodic recessions and depressions, together with the problems of unemployment and reindustrialization are considered. Prof. Winpenny.

309 Intellectual History of the United States
4 credits. An examination of the major social and intellectual movements in the United States. Profs. Brown, Winpenny.

310 African-American
4 credits. The Black American experience from colonial times to the present, with emphasis on slavery, Reconstruction, and the Civil Rights Movement.

311 The Ancient World
4 credits. An examination of the history and interconnection of ancient regions, including Mesopotamia, Egypt, Assyria, Israel, Greece and Rome.

312 Rise of Europe, 400-1400
4 credits. An exploration of the growth of western Europe from its Greek and Roman heritage and the fall of Rome through the consolidation of the Church and Christianity, the rise of kingship and nationhood, the emergence of classes, and economic, social and cultural developments.

315 The Early Modern World: Religion, Renaissance, and Encounter
4 credits. An examination of the religious, political, cultural, and scientific changes in Europe between 1400 and 1750, with emphasis placed also on the Ottoman Empire, the encounter with America, the expansion into Asia and Africa, and other global realities.

316 Birth of the Modern Age (1600-1800)
An analysis of an emerging, world-dominating Europe, with emphasis on the Enlightenment, the nation-state, global conflicts, civil wars and revolutions, and social, cultural, and economic developments.

317 Gender and Western Culture (From Antiquity through the Modern Age)
4 credits. A historical survey of women, men, and gender relations from the ancient through the modern world, encompassing not only the realities of women's and men's lives but also emerging legal and cultural notions of femininity and masculinity. Themes also include the history of family, sex, and marriage, the role of the church and theological notions of gender, shifting cultural discourses, and the development of modern notions of gender.

320 History of South Africa
4 credits. An examination of the history of South Africa from before the encounter with European settlers to the present. Topics will include the colonial period, industrialization, the apartheid regime, African resistance, and issues concerning the democratically elected "new South Africa."

330-339 Studies in United States History
4 credits for each course. An analytical inquiry into special periods and topics in American history.

340-349 Studies in European History
4 credits for each course. An analytical inquiry into special periods and topics in European history.

371-379 Special Topics
4 credits. Special subjects chosen as a response to student and faculty interest (e.g. Technology and American Society, and Urban History).

400 Senior Project
2-4 credits. Students who have been invited and accepted to participate in the Honors in the Discipline Program may register for this course in the semester in which the research or creative project is completed. *Completion of this course does not assure recognition for Honors in the Discipline. See Department chair for additional information. Prerequisite: Invitation to Honors in the Discipline Program.*

480-489 Independent Study
Variable credit. Designed to offer an opportunity to use techniques of historical interpretation in specific problem areas. *Prerequisites: approval of the department chair and the Independent Study Committee, permission of the instructor.*

490 Independent Research in History
4 credits. Required of all majors, this independent research course focuses on a topic of mutual interest to the history major and her/his mentor of choice in the department. The course may be initiated in the major's junior year but must be initiated by the first semester of the major's senior year.

Department of Mathematical Sciences

Professor: Shubert
Associate Professors: Hughes (*Chair*), Morse, Sanchis, Thorsen
Assistant Professor: Batakci
Lecturers: Walker, Graber

Bachelor of Science

The major programs in mathematical sciences are designed to prepare students either for graduate study of mathematics, for secondary teaching of mathematics, or for employment in fields that make heavy use of mathematics, such as actuarial science, engineering, or statistics. Service courses offered by Mathematical Sciences provide students in the physical, managerial, social, and life sciences with the mathematical tools essential for their respective fields. Some of these courses also satisfy the College Core requirement in the area of Mathematics. Core courses in Mathematics are designed to help students discover the cultural significance of mathematics and its contribution to the modern world, and to promote the

development of proficiency with deductive reasoning, problem solving strategies, computational skills, and using mathematics to model real world phenomena.

Majors

Bachelor of Science in Actuarial Science

Actuarial Science majors are required to take Mathematics 121, 122, 201, 222, 235, 251, 252, 351, 352, 355, 455, 457, 458, and either Mathematics 331 or 362; Accounting 101; Economics 101, 102, and 309; and Business Administration 325. In addition, Computer Science 121 is required and should be taken as early as possible. Also required is evidence of successful completion, prior to graduation, of the Exam P or Exam MF examination of the Society of Actuaries (SOA). The completion of additional examinations is encouraged.

Bachelor of Science in Mathematics

All **Mathematics majors** are required to take a minimum of 43 credits in mathematics courses, including Mathematics 121, 122, 201, 222, 235, 301, 351, and 421. Acceptable mathematics electives are courses numbered 251 or above. In addition, Computer Science 121 is required and should be taken as early as possible. In order to meet these requirements, students may elect one of the following three concentrations:

The **Applied Mathematics concentration** provides a background in applied mathematics and statistics, enabling graduates to seek careers in government and industry, or to pursue graduate work in applied mathematics or statistics. The applied mathematics concentration requires three courses selected from Mathematics 321, 331, 352, and 362 and one course from acceptable mathematics electives; Computer Science 122; and Physics 200.

The **Pure Mathematics concentration** is designed to provide a foundation for successful graduate study in mathematics. The pure mathematics concentration requires Mathematics 425 and 441, and two courses from acceptable mathematics electives. The **Secondary Education concentration** is required for secondary education certification. Students in this concentration are given a solid foundation in geometry, algebra, and statistics essential for effective teaching and analysis of the secondary school mathematics curriculum. The secondary education concentration requires Mathematics 341, either Mathematics 252 or 352, and two courses from acceptable mathematics electives; Education 105, 150, 215, 265, 275, 295, 305, 380, 470, and 490; and Physics 200.

Minor

In addition to the two majors, the department offers a minor in mathematics that requires Mathematics 121, 122, 201, 235 and three additional 200 level or above courses.

The Department of Mathematical Sciences participates in the College Honors in the Discipline Program. For guidelines and details as to requirements, the student should consult the department chair.

011 Intermediate Algebra
2 credits. An accelerated review of the fundamental algebraic and computational skills used in certain science courses and prerequisite to Mathematics 110, 117, and 251. Credits are not applicable to the 125 required for graduation. Fall semester.

105 MA Mathematics for Liberal Studies
4 credits. **(Mathematics Core Course)** An introduction to mathematical structures and applications designed to help students understand the historical and contemporary role of mathematics in everyday life. The course includes a substantial review of algebraic concepts, and topics from other areas such as logic, set theory, number systems, probability, graph theory, and matrix algebra. *This course also fulfills the 100 level Mathematical Analysis requirement of the 1990 Core program.*

110 MA College Algebra and Trigonometry
4 credits. **(Mathematics Core Course)** This course emphasizes algebraic and trigonometric concepts and their applications in the modern world, helping students prepare for further mathematical studies. The algebra of real numbers and the basics of trigonometry are studied in detail. Systems of equations, conic sections, and sequences of real numbers are covered. *Prerequisite: Mathematics 011. (competency). This course also fulfills the 100 level Mathematical Analysis requirement of the 1990 Core program.*

117 MA Concepts of Calculus
4 credits. **(Mathematics Core Course)** Designed to give students in the biological, social, and management sciences a firm working knowledge of calculus. The approach is intuitive, with emphasis on applications. Topics include differentiation, curve sketching, optimization, logarithmic and exponential functions, and integration. *Prerequisite: Mathematics 011 (competency). Note: Students who have received credit for Mathematics 121 may not enroll in this course.*

121 MA Calculus I
4 credits. **(Mathematics Core Course)** A thorough introduction to the basic concepts and techniques of the differential and integral calculus of elementary functions, including a study of limits and continuity. Applications to the physical, biological, and social sciences are studied in detail. *Prerequisite: Mathematics 110 or Acceptable Mathematics Placement. Note: Students who have received 4 credits for Mathematics 117 receive 2 credits for this course. This course also fulfills the 100 level Mathematical Analysis requirement of the 1990 Core program.*

122 Calculus II
4 credits. A continuation of Mathematics 121 involving the calculus of the trigonometric, exponential, logarithmic, and rational functions. Analytic geometry in the plane, parametric equations, polar coordinates, sequences and series are included, and an in-depth study of integration is completed. *Prerequisite: Mathematics 121.*

201 Linear Algebra
3 credits. A presentation of the basic concepts and techniques of linear algebra including vectors, vector spaces, matrices, determinants, systems of linear equations, eigenvectors and linear transformations. Students will be expected to do mathematical proofs. *Prerequisite: Mathematics 121.* Prof. Shubert.

205 Fundamentals of Mathematics
3 credits. Topics include number properties, estimation, number theory, analyzing data, exploring chance, and discovering geometric relationships. The course provides a foundation in knowledge of mathematics essential for teaching in the elementary schools as recommended by the National Council of Teachers of Mathematics. *Prerequisite: Completion of Mathematics Core requirement.* Prof. Walker.

222 Calculus III
4 credits. A continuation of Mathematics 122, completing the topics of the calculus sequence, including three-dimensional analytic geometry, vectors and vector valued functions, calculus of functions of several variables, and an introduction to differential equations. *Prerequisite: Mathematics 122.*

235 Discrete Mathematics with Proofs
4 credits. Topics include logic, sets, functions, relations, mathematical induction, combinatorics and other counting techniques, graphs, and trees. Special emphasis will be given to writing correct mathematical proofs. *Prerequisite: Mathematics 122.* Spring semester. Prof. Thorsen.

251 MA Probability and Statistics
4 credits. **(Mathematics Core Course)** Covers the basic principles of descriptive statistics, experimental design, and statistical inference. The primary objective of this course is to introduce students to statistical thinking and methodology, and their use in the natural and social sciences. This course includes an introduction to the use of the statistical software SPSS. *Prerequisite: Mathematics 011 (competency). This course also fulfills the 100 level Mathematical Analysis requirement of the 1990 Core program.*

252 Statistical Methods in Research
3 credits. A continuation of the study of statistical techniques used for analyzing problems arising in the natural and social sciences. The statistical computer software SPSS will be used, and students will pursue a research project that requires the completion of a statistical analysis culminating in the writing of a research report. *Prerequisite: Mathematics 251.* Prof. Batakci.

H270 MA Honors History of Mathematics (Honors Course)
4 credits. **(Mathematics Core - Honors)** An examination of the history of mathematics from ancient times to the 20th century. It cultivates an appreciation of mathematics as an important human endeavor. Emphasis is placed on the his-

tory of mathematical topics typically covered in the high school or early college curriculum. Fall semester. Prof. Sanchis.

301 Abstract Algebra
4 credits. A study of algebraic structures, such as groups, rings, integral domains, fields, polynomial rings, and ideals. Also included are topics from number theory, divisibility, congruence, and construction of number systems, and selected advanced topics. *Prerequisites: Mathematics 201, 235*. Fall semester. Prof. Thorsen.

321 Differential Equations
4 credits. A study of analytical, numerical and qualitative approaches to ordinary differential equations and related applications. A computer lab component, in which the software package Maple is used to create graphs, implement numerical methods, and assist with routine algebraic tasks, in the context of more extended applied problems is included. *Prerequisites: Mathematics 201, 222*. Spring semester. Prof. Batakci.

331 Operations Research
3 credits. A study of mathematical techniques and models used to solve problems from business, management, and various other areas. Topics include linear programming, integer programming, dynamic programming, queuing theory, decision analysis, network analysis, and simulations. *Prerequisite: Mathematics 201*. Fall semester, even-numbered years. Prof. Shubert.

341 Modern Geometry
3 credits. The concept of geometry as a logical system based upon postulates and undefined elements, along with an appreciation of the historical evolution of geometries. Topics include incidence geometries, planes and space, congruence, inequalities, parallel postulates, parallel projections, similarities, circles, and additional theorems. *Prerequisite: Mathematics 235*. Fall semester, odd-numbered years. Prof. Graber.

351 Theory of Probability
4 credits. A comprehensive development of the theory of probability. Topics include the basic principles of combinatorial analysis useful in computing probabilities, conditional probability, independence of events, Bayes' Rule, discrete and continuous random variables, jointly distributed random variables, expected values and variances, and limit theorems involving sums of independent random variables. *Prerequisite: Mathematics 222*. Fall semester. Prof. Sanchis.

352 Mathematical Statistics
3 credits. A study of principles of statistical inference in the theory of statistics, with an emphasis on estimation, hypothesis testing and nonparametric statistics. This course builds a solid undergraduate foundation in statistical theory, and pro-

vides an indication of the relevance and importance of the theory in solving practical problems. *Prerequisites: Mathematics 201, 351.* Spring semester. Prof. Batakci.

355 Problem-Solving in Actuarial Science
2 credits. Fundamental mathematical tools for quantitatively assessing and managing risk are developed. A basic knowledge of calculus and probability is assumed. *Specifically geared towards the student's preparation for the Actuarial Examination P. Prerequisite: Mathematics 351.* Spring semester, odd-numbered years. Prof. Sanchis.

362 Numerical Analysis
3 credits. A study of iterative methods suitable for computer programming that are useful in solving a variety of mathematical problems arising in the sciences, including actuarial science. Topics include solutions of equations in one variable, numerical integration, polynomial approximation, solution of linear systems, and numerical methods in matrix algebra. *Prerequisites: Mathematics 201, 222; Computer Science 121.* Fall semester, odd-numbered years. Prof. Hughes.

370-379 Special Topics in Mathematics
Variable Credit. Topics of special interest to advanced undergraduate mathematics students. *Prerequisite: permission of the Department Chair.*

400 Senior Project
1-3 credits. An intensive, individual project, which must involve material not covered in regular course offerings, and be approved and guided by a faculty member. The student writes a paper (involving original exposition, original research, or both), and presents her/his findings orally. *Completion of this course does not assure recognition for Honors in the Discipline. Prerequisite: Invitation to Honors in the Discipline.* Graded pass/no pass.

421 Real Analysis
4 credits. A rigorous study of the fundamental concepts of analysis, including such topics as sequences of real numbers, limits, continuity, differentiation, and integration. *Prerequisites: Mathematics 201, 222, 235.* Fall semester. Prof. Hughes.

425 Complex Variables
3 credits. A study of complex numbers, analytic functions, Cauchy's Theorem, the maximum modulus theorem, harmonic functions, power series, Laurent's series, calculation of residues, evaluation of real integrals, and conformal mappings. *Prerequisites: Mathematics 222, 235.* Spring semester, odd-numbered years. Prof. Thorsen.

441 Topology
3 credits. A rigorous introduction to the elements of point-set topology, including infinite cardinalities, abstract topological spaces, abstract continuity, separation and closure of sets in topological spaces, connectedness, and compactness. More

advanced topics in topology may be included as well, depending on time constraints and the interests of the instructor. *Prerequisites: Mathematics 122, 235*. Spring semester, even-numbered years. Prof. Hughes.

455 Mathematics of Compound Interest and Life Insurance
4 credits. Topics include: measurement of interest, including accumulated and present value factors; annuities certain; yield rates; amortization schedules and sinking funds; bonds and related securities; yield curves, spot rates, and forward rates; immunization. *Specifically geared toward preparation for the Actuarial Examination MF. Prerequisite: Mathematics 117 or 121*. Spring semester, even-numbered years. Prof. Sanchis.

457 Life Contingencies I
3 credits. Topics include: contingent payments, life tables, and life annuities; advanced problems in the mathematical theory of life contingencies; force of mortality, laws of mortality; premiums and reserves for insurance and annuities based on a single life. *Specifically geared toward preparation for the Actuarial Examination M. Prerequisite: Mathematics 352, 455, and evidence of successful completion of either Exam P or Exam MF.* Fall semester. Prof. Sanchis.

458 Life Contingencies II
3 credits. Continuation of Ma 457. Topics include: joint life probabilities, annuities, and insurances; multiple decrement theory; pension fund mathematics. *Specifically geared towards the student's preparation for the Actuarial Examination M. Prerequisite: Mathematics 457*. Spring semester. Prof. Sanchis.

480-489 Independent Study
Variable credit. Staff.

Education 305 Practicum in Secondary Education
3 credits. A study of the instructional methodology of mathematics under the guidance of a clinical professor in mathematics. Field experience required. *Prerequisite: Education 230. Corequisites: Education 295, 380*. Fall semester. Prof. Graber.

Department of Modern Languages

Professor: Pennington
Associate Professors: Barnada (*Chair*), Harman, Trachte
Assistant Professors: Bhattacharya, Linares

Bachelor of Arts

The study of a modern foreign language brings together practical training in language skills (understanding, speaking, reading, and writing) with an understanding of the sociology, history and literature of the culture. The pragmatic virtues of a usable skill are joined with the humanistic values of liberal education.

The Department of Modern Languages offers programs of study which reflect its desire to encourage both mastery of one or more foreign languages and an overall appreciation of the cultural contexts in which they occur. The Department serves the Core program, bachelor of arts degree candidates majoring or minoring in languages, students whose degree programs require studies in languages, and students who, for professional or personal reasons, wish to broaden their cultural background.

Majors

The Department offers Modern Language majors in French, German, and Spanish. The requirements of a major may be met by completing 35 credits in one language above 112 (a minimum of 20 credits in residency and 15 credits through Brethren Colleges Abroad or another departmentally approved program). Language majors are required to participate in the Brethren Colleges Abroad program during one academic year or the equivalent of two separate semesters. Non-majors who have completed 211 or above are also encouraged to participate in the Brethren Colleges Abroad or approved study abroad programs.

Modern Language majors must complete the following courses: Modern Languages 211, 212, and 495. Majors must also take two courses at the 300 level: 303, 305, 311, 319, or 323. A 371 course may be substituted for the preceding ones provided that it is offered and that it meets department approval. At least two of these courses, Modern Languages 211, 212, 303, 305, 311, 319, or 323 must be completed on the Elizabethtown College campus with members of the department faculty. In addition, the senior research project (495) must be written on campus under departmental faculty supervision. Majors must participate in the BCA program for one year and the courses taken must include advanced conversation and composition, phonetics, French/German/Spanish history, and History of (French/German/Spanish) Literature for a minimum of 15 credits in the major. After completing the required course work, majors must take the oral proficiency interview and receive a minimum proficiency rating of Advanced/Level 2.

Minors

The option of a **Modern Language minor** is also available in French, German, Japanese, and Spanish. The requirements of a minor are: Modern Language 211, 212, and two courses at the 300 level. These include 303, 305, 311, 319, and 323; 330, 331 for Japanese. A 371 course may be substituted for the preceding ones provided that it is offered and that it meets department approval. At least two of the first four courses above must be completed on the Elizabethtown College campus. The remaining two may be completed on campus or in the Brethren

Colleges Abroad program. Japanese minors may complete the remaining two courses at Nihon University Tokyo, Japan. After completing the required course work, students must take the oral proficiency interview and receive a minimum proficiency rating of Intermediate High/Level 1+. Japanese Minors must achieve the designated level of the Japanese Foundation Proficiency Test.

International students with fluency in either French, German, or Spanish may pursue a major or minor under certain circumstances. First, they must place into the 300 level at Elizabethtown College. Second, if they participate in the BCA program, they must study only at the university level and must enroll in advanced literature or linguistics courses. Third, successful completion of the major or minor will be contingent upon the rating of Superior on the oral proficiency interview.

A placement test is administered free of charge three specific times a year. It may be taken at any other time during the academic year for the general college fee of $70. All students with one full year or more of language preparation must take the placement test before registering in language courses for academic credit. Contact the department chair for dates and other information.

American Sign Language

ASL 325 American Sign Language

2 credits. Basic competency in the use and comprehension of American sign language and to acquaint the learner with the cultural uniqueness of the deaf community. Prof. Albert

English as a Second Language

ESL 112 English as a Second Language and American Culture

3 credits. Development and refinement of the student's functional proficiency through grammar and essay development, audio/video materials to improve listening comprehension, and extended oral discourse. Reading selections increase reading comprehension and awareness and understanding of American culture. *Prerequisite: Placement by examination and TOEFL score.*

French

111 PL Fundamentals of Language and Culture I

4 credits. (**Power of Language Core Course)** Basic elements of structure and the phonetic system in culturally authentic contexts. The development of communicative competence in five skill areas: speaking, listening, reading, writing, and sociocultural awareness. Audio and videotapes supplement proficiency-oriented textbooks. *This course also fulfills the 100 Level Foreign Culture International Studies requirements of the 1990 Core program.*

112 PL Fundamentals of Language and Culture II

4 credits. **(Power of Language Core Course)** Expansion of basic elements of structure and the phonetic system in culturally authentic contexts. Additional

development of communicative competency in five skill areas: listening, speaking, writing, reading, and sociocultural awareness. Audio and videotapes supplement proficiency-oriented textbooks. *Prerequisites: Modern Language 111, or placement by examination. This course also fulfills the 100 level Foreign Culture International Studies requirement of the 1990 Core program.*

211 PL Communication Through Language and Culture I
4 credits. **(Power of Language Core Course)** Emphasizes functional proficiency. A functional-notational syllabus expands use of linguistic tasks such as asking questions, stating facts, describing, narrating, and expressing feelings. Use of authentic cultural materials and contexts heightens sociocultural awareness. Audio and videotapes supplement texts and written materials. *Prerequisites: Modern Language 112, or placement by examination. This course also fulfills the 200 level Foreign Culture International Studies requirement of the 1990 Core program.*

212 PL Communication Through Language and Culture II
4 credits. **(Power of Language Core Course)** Expanded use of linguistic functions. Introduction and development of more advanced tasks such as sustaining opinions, explaining, comparing, and hypothesizing. Use of authentic cultural materials and contexts heightens sociocultural awareness. Audio and videotapes supplement texts and written materials. *Prerequisites: Modern Language 211, or placement by examination. This course also fulfills the 200 level Foreign Culture International Studies requirement of the 1990 Core program.*

303 Reading Authentic Texts
4 credits. Development of and practice in reading authentic cultural, historical, and literary texts; through the study of numerous strategies, training provided by textbook exercises, and immediate application to selections, students will learn how to read in order to read for the purpose of learning. *Prerequisites: French 212, or permission of the instructor.* Prof. Trachte.

311 Making of Modern Society
4 credits. Analysis of important contemporary cultural phenomena and issues which have shaped and continue to shape the modern nation. Readings are taken from literary, sociological and political sources. Films, slides, and audio and videotapes supplement written materials. *Prerequisites: Modern Language 212, or permission of the instructor.*

323 Introduction to Literature
4 credits. Development of students' ability to read thoroughly, analyze, and appreciate literature. Selected readings representative of different literary genres. *Prerequisites: Modern Language 212, or permission of instructor.* Prof. Linares.

371-379 Special Topics
4 credits. Topics of special interest not otherwise covered in the curriculum. Topics depend upon student interest and faculty availability. *Prerequisites: Modern Language 212, or permission of the instructor.*

481-489 Independent Readings
3 credits. For senior language majors. Independent projects in some area of language or literature. *Prerequisite: Approval of Department chair and Independent Study Committee.*

495 Senior Research Project
4 credits. For senior language majors. Involves researching a literary, linguistics, or cultural topic and the writing of a major paper in the target language. This capstone experience will be closely supervised by department faculty.

German

111 PL Fundamentals of Language and Culture I
4 credits. **(Power of Language Core Course)** Basic elements of structure and the phonetic system in culturally authentic contexts. The development of communicative competence in five skill areas: speaking, listening, reading, writing, and sociocultural awareness. Audio and videotapes supplement proficiency-oriented textbooks. *This course also fulfills the 100 Level Foreign Culture International Studies requirements of the 1990 Core program.*

112 PL Fundamentals of Language and Culture II
4 credits. **(Power of Language Core Course)** Expansion of basic elements of structure and the phonetic system in culturally authentic contexts. Additional development of communicative competency in five skill areas: listening, speaking, writing, reading, and sociocultural awareness. Audio and videotapes supplement proficiency-oriented textbooks. *Prerequisites: Modern Language 111, or placement by examination. This course also fulfills the 100 level Foreign Culture International Studies requirement of the 1990 Core program.*

211 PL Communication Through Language and Culture I
4 credits. **(Power of Language Core Course)** Emphasizes functional proficiency. A functional-notational syllabus expands use of linguistic tasks such as asking questions, stating facts, describing, narrating, and expressing feelings. Use of authentic cultural materials and contexts heightens sociocultural awareness. Audio and videotapes supplement texts and written materials. *Prerequisites: Modern Language 112, or placement by examination. This course also fulfills the 200 level Foreign Culture International Studies requirement of the 1990 Core program.*

212 PL Communication Through Language and Culture II - WRI
4 credits. **(Power of Language Core Course)** Expanded use of linguistic functions. Introduction and development of more advanced tasks such as sustaining

opinions, explaining, comparing, and hypothesizing. Use of authentic cultural materials and contexts heightens sociocultural awareness. Audio and videotapes supplement texts and written materials. Prerequisite: Modern Language 211, or placement by examination. *This course also fulfills the 200 level Foreign Culture International Studies requirement of the 1990 Core program.* A Writing and Research Intensive Course.

311 Making of Modern Society
4 credits. Analysis of important contemporary cultural phenomena and issues which have shaped and continue to shape the modern nation. Readings are taken from literary, sociological and political sources. Films, slides, and audio and videotapes supplement written materials. *Prerequisites: Modern Language 212, or permission of the instructor.*

323 Introduction to Literature
4 credits. Development of students' ability to read thoroughly, analyze, and appreciate literature. Selected readings representative of different literary genres. *Prerequisites: Modern Language 212, or permission of the instructor.*

371-379 Special Topics
4 credits. Topics of special interest not otherwise covered in the curriculum. Topics depend upon student interest and faculty availability. *Prerequisites: Modern Language 212, or permission of the instructor.*

481-489 Independent Readings
4 credits. For senior language majors. Independent projects in some area of language or literature. *Prerequisite: Approval of Department chair and Independent Study Committee.*

Japanese

111 PL Fundamentals of Language and Culture I
4 credits. **(Power of Language Core Course)** Basic elements of structure and the phonetic system in culturally authentic contexts. The development of communicative competence in five skill areas: speaking, listening, reading, writing, and sociocultural awareness. Audio and videotapes supplement proficiency-oriented textbooks. *This course also fulfills the 100 Level Foreign Culture International Studies requirements of the 1990 Core program.* Prof. Battacharya.

112 PL Fundamentals of Language and Culture II
4 credits. **(Power of Language Core Course)** Building upon Japanese 111, the further oral and aural fluency in daily communication situations are developed. Kanji is introduced. Communicative competence of approximately 100 of the most frequently used kanj is expected. Students are equipped with the ability to acquire Level Four of the Japanese Language Proficiency Test administered by the Japan Foundation. *Prerequisites: Modern Language 111, or placement by examination. This*

course also fulfills the 100 level Foreign Culture International Studies requirement of the 1990 Core program. Prof. Battacharya.

211 PL Communication Through Language and Culture I
4 credits. **(Power of Language Core Course)** Further development of oral proficiency and reading and writing skills at the intermediate level of instruction. Proficiency in kanji is increased to 250, and Japanese work processing is introduced. Use of authentic cultural materials and contacts develops greater sociocultural awareness. *Prerequisites: Modern Language 112, or placement by examination. This course also fulfills the 200 level Foreign Culture International Studies requirement of the 1990 Core program. Students who have taken Japanese 373 may not take this course.* Prof. Battacharya.

212 PL Communication Through Language and Culture II
4 credits. **(Power of Language Core Course)** Building upon 211, skills for reading and essays and short stories, writing descriptive, informative texts, and conversing appropriately on personal topics within a variety of informal and formal situations are improved. Proficiency in kanji is aimed at 500 characters. Additionally, an email exchange program is introduced with students at Nihon University, Japan. Ability to take Level Three of the Japanese Language Proficiency Test is one of the measurable objectives of this course. *Prerequisites: Modern Language 211, or placement by examination. This course also fulfills the 200 level Foreign Culture International Studies requirement of the 1990 Core program. Students who have taken Japanese 373B may not take this course.* Prof. Battacharya.

330: Advanced Japanese I
4 credits. Preparation for understanding written and spoken materials aimed at native speakers. Newspaper articles and literary texts, along with academic writing, are used as teaching materials. Television and radio broadcasts are used to develop listening skills. Basics of essay, précis, and letter writing are introduced to augment writing skills. *Students who have taken Japanese 374 may not take this course.* Prof. Battacharya.

331: Advanced Japanese II
4 credits. Further development of skills acquired in Japanese 330. Student are trained to do rapid reading of texts in varied fields. Ability to satisfy the objectives of Level Two of the Japanese Language Proficiency Test is expected. *Students who have taken Japanese 374B may not take this course.* Prof. Battacharya.

Spanish

111 PL Fundamentals of Language and Culture I
4 credits. **(Power of Language Core Course)** Basic elements of structure and the phonetic system in culturally authentic contexts. The development of communicative competence in five skill areas: speaking, listening, reading, writing, and sociocultural awareness. Audio and videotapes, and computer work, supplement

proficiency-oriented textbooks. *This course also fulfills the 100 Level Foreign Culture International Studies requirements of the 1990 Core program.*

112 PL Fundamentals of Language and Culture II
4 credits. **(Power of Language Core Course)** Expansion of basic elements of structure and the phonetic system in culturally authentic contexts. Additional development of communicative competency in five skill areas: listening, speaking, writing, reading, and sociocultural awareness. Audio and videotapes, and computer work, supplement proficiency-oriented textbooks. *Prerequisites: Modern Language 111, or placement by examination. This course also fulfills the 100 level Foreign Culture International Studies requirement of the 1990 Core program.*

211 PL Communication Through Language and Culture I
4 credits. **(Power of Language Core Course)** Review and expansion of basic Spanish grammar and vocabulary at the intermediate level in speaking, listening, writing, and reading. In-class work develops oral proficiency at the intermediate level; out of class work, including laboratory assignments, on-line materials, and work with carefully selected website materials enhances writing and reading proficiencies. Sociocultural awareness is developed through audio and video resource materials that supplement proficiency-oriented materials. *Prerequisites: Modern Language 112, or placement by examination. This course also fulfills the 200 level Foreign Culture International Studies requirement of the 1990 Core program.*

212 PL Communication Through Language and Culture II
4 credits. **(Power of Language Core Course)** Continued review and expansion of basic grammar and vocabulary introduced in Spanish 211 speaking, listening, writing, and reading. Development of more advanced tasks such as describing, narrating, and hypothesizing. In-class work develops oral proficiency at the intermediate level; out of class work, including laboratory assignments, on-line materials, and continued work with selected website materials enhances writing and reading proficiencies. Sociocultural awareness is developed through audio and video resource materials that supplement proficiency-oriented materials. *Prerequisites: Modern Language 211, or placement by examination. This course also fulfills the 200 level Foreign Culture International Studies requirement of the 1990 Core program.*

305 Spanish Conversation
4 credits. Development and practice of oral skills for self-expression in Spanish. Emphasis on aural comprehension and fluency in the use of everyday Spanish. Small group discussions and oral presentations in Spanish based on current cultural, ethical and political topics will be the principal means of accomplishing this goal. *Prerequisites: Spanish 212, or permission of the instructor.*

311 Making of Modern Society
4 credits. Analysis of important contemporary cultural phenomena and issues which have shaped and continue to define modern Hispanic America and Spain.

Cross-cultural influences, innovations, and historical events that have shaped the modern nation will be studied. Readings are taken from literary, sociological and political sources. Films laboratory assignments are required of each student in addition to work with supplementary audio and video materials. *Prerequisites: Modern Language 212, or permission of the instructor.*

319 Spanish Linguistics
4 credits. Surveys current linguistic research on the structure and dialectal (sociological and geographic) variation of the Spanish language. A contrastive analysis of Spanish and English phonology, morphology, syntax and semantics develops the student's ability to understand the major structural differences between these languages. Students develop an appreciation of native speakers' perceptions regarding their own language. One hour per week in class and out of class assignments with audio materials are devoted to the development of native-like pronunciation. *Prerequisites: Spanish 212, or permission of the instructor.* Prof. Barnada.

323 Introduction to Literature
4 credits. Development of students' ability to read thoroughly, analyze, and appreciate literature. Selected readings representative of different literary genres. *Prerequisites: Modern Language 212, or permission of the instructor.* Prof. Linares.

371-379 Special Topics
4 credits. Topics of special interest not otherwise covered in the curriculum. Topics depend upon student interest and faculty availability. *Prerequisites: Modern Language 212, or permission of the instructor.*

481-489 Independent Readings
4 credits. For senior language majors. Independent projects in an area of language or literature. *Prerequisite: Approval of Department chair and Independent Study Committee.*

495 Senior Research Project
4 credits. For senior language majors. Involves researching a literary, linguistics, or cultural topic and the writing of a major paper in the target language. The research is presented orally before faculty members and invited guests. This capstone experience will be closely supervised by department faculty.

Music

See Department of Fine and Performing Arts, page 104.

Department of Occupational Therapy

Associate Professors: Hight, Honaker
Assistant Professors: Carlson (*Chair*), Panchik
Clinical Lecturers: Leimbach, Potter

Fieldwork Coordinators: Achenbach, Waltermire

Bachelor of Science
Master of Science

Elizabethtown College offers a combined BS/MS Occupational Therapy program that requires five years of academic study and six months of clinical fieldwork. The program awards both a Bachelor of Science in Health and Occupation and a Master of Science in Occupational Therapy degree.

Mission

To educate students to become highly qualified occupational therapy practitioners who can actively contribute to the profession through service, scholarship, and leadership, and to promote occupational justice for all people.

Core Values

The Core Values of the occupational therapy program are:

Exceptionally prepared entry-level master's occupational therapy practitioners – educating practitioners who are able to engage in reflective practice based on clinical reasoning; who have a solid foundation of skills and knowledge; who demonstrate a thorough understanding of research and its relation to evidenced-based practice; and who value the ethos of professionalism and the ethics of life-long learning.

Human occupation – emphasizing the understanding of human occupations across cultural and social groups and as they relate to the therapeutic process and healthy well-being. Occupational Therapy courses bridge the understanding gap between occupational performance and liberal arts learning through case studies, discussion, and active learning.

Occupational justice – emphasizing the right that all individuals have to maintain a healthy balance of meaningful occupations. This involves helping others to participate in meaningful and balanced occupations.

Globally aware students – emphasizing the need for multicultural awareness and international understanding as a prerequisite for occupational therapy practice. International and service experiences enable our students to interact effectively in culturally diverse practice settings. Service learning and civic engagement are valued components of our program.

Liberal arts foundation – emphasizing the role of the liberal arts education in developing personal character, critical thinking, ethical problem solving, and communication. Occupational therapy at Etown has a proud tradition educating students for a professional discipline in a liberal arts environment.

Bachelor of Science in Health & Occupation

This degree serves as a prerequisite to the Master of Science in Occupational Therapy and as an alternative baccelaurate course of study in the Department of Occupational Therapy for students who do not choose to pursue the Masters of

Science degree. Students completing only this course of study are not eligible to become registered occupational therapists, but have academic credentials that qualify them to be employed in a related service agency, health care facility, or community setting. The Health and Occupation Major requires Occupational Therapy 111, 112, 223, 224, 227, 228, 307, 309, 318, 327, 329, 331, 427, 428, 429, 429P, 440, 450; Biology 111, 201, 202; Mathematics 251; Psychology 105. Off-campus experiences in service learning and clinical visits are required for all students. Students choosing only this course of study may also participate in a Health Internship experience. A 2.0 or higher Occupational Therapy GPA is required.

As a prerequisite to the Master of Science program, additional Bachelor of Science retention requirements include:

1. Occupational Therapy GPA of 2.5 in order to enroll in 300-level courses as a Master of Science candidate

2. No grade lower than C- in 300 & 400-level courses

Students who fail to meet these requirements can continue with the course of study for the Bachelor of Science in Health & Occupation, but are no longer considered candidates for the Master of Science program.

The Department of Occupational Therapy supports many opportunities for students and academic recognition. The Department participates in the College Honors in the Discipline. Bachelor of Science students are notified of Honors eligibility during the Junior year. Students with an Occupational Therapy GPA of 3.5 or higher are also considered candidates for the national occupational therapy honor society: Pi Theta Epsilon. All occupational therapy students are invited to participate in the Student Occupational Therapy Association, a college club designed to promote Occupational Therapy and to develop professional interest.

Master of Science in Occupational Therapy

The Master of Science in Occupational Therapy requires one year of academic study and 6 months of clinical fieldwork, in addition to the successful completion of the Bachelor of Science in Health & Occupation. Successful completion of the Master of Science in Occupational Therapy affords the student the opportunity to take the National Board of Certification in Occupational Therapy Exam and to become licensed to practice Occupational Therapy (if required by the individual's state of residence). Please note: a felony conviction may affect an individual's qualification to take the NBCOT certification exam. Master of Science in Occupational Therapy requires Occupational Therapy 398, 471, 501, 502, 510, 528, 529, 551, 555, & nine credits of graduate electives.

In order to progress to the Master of Science program the student must:

1. Achieve an Occupational Therapy GPA of 2.7 or higher in the Bachelor of Science in Health & Occupation degree

2. Submit an essay demonstrating commitment to the profession that also identifies personal learning goals

In order to maintain academic standing in the Master of Science program, the student must:

1. Maintain an Occupational Therapy GPA of 3.0 or higher
2. Receive a grade no lower than C- in all 500-level courses

Level II Fieldwork (Occupational Therapy 571 and 598)

Fieldwork provides the student with the opportunity to apply clinical skills in occupational therapy practice settings. Fieldwork experiences usually occur the summer between the fourth and fifth year and following the fifth year. Elizabethtown College has established relations with over 200 clinical sites locally and throughout the United States. Fieldwork Coordinators match students with appropriate settings based primarily on student career goals, student learning needs, and geographical considerations. Additional expenses for living and housing are often incurred as students complete Level II Fieldwork assignments. Individual fieldwork sites may also require students to meet health requirements (e.g., TB test, current immunizations), participate in training for Universal Precautions, and pass Criminal and Child Safety background checks. Students must achieve a score of "Pass" from clinical supervisors in order to be eligible to attain the MS degree. It is expected that most students would complete the fieldwork within 12 months of finishing coursework.

Professional Accreditation

The Occupational Therapy program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD, 20814-3425; (phone) 301-652-2910; (fax) 301-652-2682. The program has been accredited since 1976 with the most recent reaccreditation in 2003.

Occupational Therapy is a health profession that helps to improve the well being and functions of people with developmental delay and physical and psychological dysfunction. The student in occupational therapy undertakes a program that integrates the humanities and the behavioral and physical sciences with professional study.

Emphasis on the importance of both the humanities and the sciences in preparing for professional life is further manifest in the philosophical approaches which shape the department. The bases of the program are a comprehensive knowledge about human development, an awareness of the significance of sociocultural environments, and an understanding of the dynamics of human relations.

The primary objective is to prepare the student as a generalist practitioner who is qualified for employment in hospitals, community agencies, schools, rehabilitation centers, extended-care facilities and related human services agencies. With this foundation, the beginning therapist can progress to specialized areas of clinical practice as well as research, administration, and academia.

111 Basic Concepts in Occupation
4 credits. An introduction to the conceptual framework which is critical to the understanding of the occupational and adaptive nature of humans. Students examine the occupational nature of humans, discussing the concepts which constitute performance areas and those which environmentally influence individuals in performance. Students explore their own motivation and become aware of their own personalities, learning styles, and values as a first step in being able to consider themselves as therapeutic resources. Students also explore the beneficial aspects of activity, specifically the world of making and doing. They engage in reflection on the relationships between self and activities and in the process of assessing and evaluating the interrelated elements of activities. *Prerequisite: permission of the instructor for nonmajors.* Fall semester.

112 Occupation as Therapy
3 credits. An introduction to disability and the use of occupation as therapy, building on the occupational nature of humans. The concept of disability, types and consequences are explained. An opportunity to learn about the historical, philosophical and ethical development of the profession of occupational therapy is provided. Roles and functions of Occupational Therapy personnel, their relationships to other health care professionals and the range and scope of practice are introduced. Professional organizational levels are delineated. The nature and processes of professional reasoning in the practice of occupational therapy, and the major theories related to occupational performance and occupational behavior is introduced. *Prerequisites: Occupational Therapy 111, Occupational Therapy majors only.* Spring semester.

201 Piecework: The Threads of Women's Lives
3 credits. A study of Piecework, with an emphasis on activities in the fiberarts, as they have historically shaped and defined a major aspect of women's leisure. Processes and techniques such as needlework, embroidery, lace making, knotting, weaving, patchwork and quilting, using a variety of materials and fibers are learned, as is the history of these activities while also exploring the effects of women's engagement in these occupations during different periods of history. *This course also fulfills the 200 level Creative Expression requirement of the 1990 Core program.*

223 Life Skills I: Birth Through Adolescence
4 credits. An examination of childhood development with a focus on occupational performance from conception through adolescence. An emphasis is placed on typical patterns of activity, holistically considering the biophyiscal, cognitive, and psychosocial aspects of development. Lab, community based, and service learning opportunities will supplement lecture discussions and other active learning strategies. *Prerequisite: permission of the instructor.* Fall semester.

224 Life Skills II: Young Adult Through Old Age
4 credits. An examination of the developmental spectrum throughout the adult years. An emphasis is placed on occupational performance and how changing performance in biophyiscal, cognitive, and psychosocial domains influence role satisfaction and performance. Community based and service learning opportunities supplement lecture discussions and other active learning strategies. *Prerequisites: Occupational Therapy 223, or permission of the instructor for nonmajors.* Spring semester.

227 Activities and Media
2 credits. An expansion of the concept of occupational performance as presented in Occupational Therapy 112. Exposure to and practice with a variety of occupational performance tasks in the areas of self-care, work/education and play/leisure throughout the life span. Emphasis is on analysis, adaptation and treatment implications. *Prerequisite: Occupational Therapy 112.* Fall semester.

228 Group Process
2 credits (1 credit). Provides opportunities for the student to experience and apply integrated knowledge related to group process and group dynamics. Group process is studied from a variety of perspectives. While an emphasis is placed on activity-focused therapeutic groups, attention is also given to normal group processes (such as interdisciplinary team functioning, committee group work, and/or staff meetings). Students enhance their ability to analyze personal, professional, and clinical factors influencing effective group process. *Prerequisite: Occupational Therapy majors only.* Spring semester.

H302 Honors SSC Occupational Justice in a Global Perspective
4 credits. **(Social Science Core - Honors)** The problems of equity among workers in a global context are explored. Examples from various social science research methodologies: demography, survey research, qualitative research, and participant observation are used. Attention is given to methodology and content in the course, and the topical theme is used in part to enliven the examination of social science methodology. Topics include: case study development to explore and illustrate inequities by race, religion, age, ethnicity, social class or caste, gender and sexual preference in the type of work the individual has access to, they wages earned, and the working conditions; the relationship of educational opportunities and child care to work and working conditions; occupation of paid and unpaid work inside and outside of the home; and comparative data on employment policies in the Untied States and other modernized states. Prof. Hight.

307 Neurobehavioral Science: Neurology
2 credits. An overview of basic neuroanatomy and neurophysiology with emphasis on the functional neuronal systems (motor, sensory, limbic), clinical conditions, and the therapeutic treatment. *Prerequisites: Biology 201 and 202, or permission of the instructor for nonmajors.* Fall semester.

318 Kinesiology
4 credits. Application of the principles of functional anatomy with emphasis on normal and abnormal movement. Measurement techniques for range of motion and muscle testing are presented. Concepts are integrated in lab experiences. *Prerequisites: Biology 201, or permission of the instructor for nonmajors.* Fall semester (Spring semester).

327 Pathology I
3 credits (2 credits). Familiarizes students with common diagnoses, conditions and disorders encountered in the clinical practice of occupational therapy. An emphasis will be placed on understanding incidence/epidemiology, etiology, diagnosis, symptomatology, prognosis, and medical/educational/psychological interventions of selected neurological and/or psychological conditions. Spring semester. *Prerequisites: Psychology 105, Occupational Therapy 223, 224. Occupational Therapy majors only.* Fall semester.

329 Occupational Therapy Practice I: Sensory & Cognitive Interventions
4 credits. Focuses on sensory and cognitive performance components which impact on occupational performance areas. Students learn to apply the Occupational Therapy process to practice for individuals with sensory and/or cognitive deficits resulting from central nervous system disorders, peripheral nerve injury, head trauma, Alzheimer's disease, developmental disabilities and schizophrenia and other conditions. *Prerequisites: Occupational Therapy 112, 223, 224. Occupational Therapy majors only.*

331 Occupational Therapy Process
2 credits. A guide through a multifaceted study of the occupational therapy process, including evaluation, treatment, and discharge planning. Exploration of and engagement in introductory clinical reasoning activities guide the student through case examples of the occupational therapy process. An understanding of research as it influences the Occupational Therapy process is established. In addition, professional association guidelines for documentation, professional roles (e.g., COTA, OTR) and ethical concepts is applied to the occupational therapy process. *Prerequisite: Occupational Therapy 112.* Fall semester.

371-379 Special Topics
Variable-credits. A series of courses with topics not otherwise covered in the curriculum. Offered when student interest and faculty availability justify. *Prerequisite: permission of the instructor.*

427 Pathology II
3 credits (2 credits). Focus is primarily on physiological and motor disorders (including medical and surgical conditions) in addition to more complex conditions involving both neurological and physiological conditions. Emphasis on etiol-

ogy, symptomatology, prognosis and treatment methods. *Prerequisites: Occupational Therapy 223, 224. Occupational Therapy majors only.* Spring semester.

428 Occupational Therapy Practice II: Psychosocial Interventions
4 credits. Focuses on the application of psychosocial treatment in occupational therapy. Exposure to frames of reference and theories as guidance for clinical reasoning for persons of different ages with physical, cognitive, and/or psychological disabilities. Special attention is given to persons with mental illness as the primary diagnosis. Theoretical concepts, evaluation tools, and therapeutic techniques are integrated with fieldwork experience. *Prerequisites: Psychology 105, Occupational Therapy 223, 224, 228, 327. Occupational Therapy majors only.* Fall semester.

429 Occupational Therapy Practice III: Neuromusculoskeletal Assessment and Intervention.
4 credits. Students learn to apply the occupational therapy process of evaluation, treatment planning, and treatment to people with deficits in musculoskeletal or neurological systems. *Prerequisites: Biology 201, 202, Occupational Therapy 318, 307, 327, 328, 331. Occupational Therapy majors only.* Spring semester.

429P Occupational Therapy Practice III: Facilitating Occupational Performance in Neuromusculoskeletal Dysfunction
2 credits. Students learn the impact of neurological or musculoskeletal deficits on occupational performance and methods of remediation of function. *Corequisite: Occupational Therapy 429. Occupational Therapy majors only.* Spring semester.

440 Health Care Systems
3 credits. A study of the development of health care systems in the United States. Includes administrative structure, payment systems, quality assurance, regulations and legislative issues.

450 Research I
3 credits. This is the first in a two course series designed to engage the learner in study of the research process, design, and methodology related to the practice of occupational therapy. Students are expected to become critical consumers of research and are prepared to actively engage in the research process following course completion. Both qualitative and quantitative research designs are investigated. *Prerequisites: Mathematics 251; Occupational Therapy 329, 428*. Spring semester.

475 Health Internship
0 credits. Alternative internship experience in a health setting that is approved by the Department of Occupational Therapy. This experience allows students to apply skills and knowledge gained through academic work in a related service agency, health care facility, or community setting. *Prerequisites: Occupational Therapy 329, 428. Corequisites: Occupational Therapy 429, and 429P.*

479 Level II Fieldwork – Specialty
0 credits. Variable length of Level II Fieldwork experience in area of student's interest. Arranged on an availability basis. *Prerequisites: Occupational Therapy 398 and 471. Occupational Therapy majors only.*

481-488 Independent Studies
Variable credit. Purpose of this course is to offer advanced students opportunity to study specialized areas not otherwise included in the curriculum. *Prerequisite: Approval of the department chair and Independent Study Committee.*

501 Masters Project I
2 Credits. A first in a two-course series designed to allow students to explore in depth an area of interest and to complete a project of significance to the profession of occupational therapy. Projects will be clinical, service and/or research based. In this course, students will do a comprehensive review of relevant literature and will develop a proposal describing all project elements. *Prerequisites: Mathematics 251; Occupational Therapy 450, 551. Corequisite: Occupational Therapy 551.* Fall semester.

502 Masters Project II
4 credits. The second in a two-course series designed to allow students to explore in depth an area of interest and to complete a project of significance to the profession of occupational therapy. Projects are clinical, service and/or research based. Students complete all of the project elements as described in the proposal. The project results in a document appropriate for publication and in a formal oral presentation. *Prerequisites: Occupational Therapy 501, 450, 551. Corequisite: Occupational Therapy 555.* Spring semester.

510 Administration, Management, and Supervision
3 credits. An introduction to the principles of management in the provision of occupational therapy services. Focus is on developing skills in: program planning and evaluation; administration and management of occupational therapy departments and multidisciplinary programs and community agencies; and occupational therapy consultation with individuals and organizations. Topics include quality improvement, financial management, personnel management, leadership, and team building. *Prerequisites: Occupational Therapy 329, 440, 428, 429*. Fall semester.

528 Advanced Clinical Reasoning
3 credits. Students are helped to reach a higher level of critical thinking related to the practice of occupational therapy. The students use advanced clinical reasoning to analyze a variety of complex cases from diverse populations and cultures. Specifically, students synthesize procedural, interpersonal, environmental, pragmatic and cultural issues. An emphasis is given to advanced concepts and theories within the context of the students' accumulated knowledge and previous fieldwork experience. *Prerequisites: Occupational Therapy 329, 428, 429, 440.* Fall Semester.

529 Advanced Practice Issues
3 credits. A variety of advanced practice issues in the field of occupational therapy are covered. Students develop advanced knowledge in specialty areas of occupational therapy practice. Emphasis is given to ethical principles as they apply to occupational therapy practice. *Prerequisite: Occupational Therapy 528*. Spring semester.

540-549 Specialized Electives in OT Practice Areas
1-2 credits. Courses change yearly based upon the interests of the graduate class. Course offerings and descriptions are available in the OT Department.

551 Research II
3 credits. Students are provided the opportunity to apply research concepts and knowledge to occupational therapy practice issues, and design and implement beginning-level research studies. Entry level research experience that will empower students with the foundational skills necessary to engage in professional research is provided. *Prerequisite: Occupational Therapy 450*. Fall semester.

555 Professional Writing
3 credits. Students' skills in professional writing are developed to write professionally for target audiences by tailoring content and form to specifically stated guidelines (e.g. grant proposals, program evaluations, manuscripts for publication, Representative Assembly resolutions.) *Prerequisites: Occupational Therapy 450, 551*.

571 Level II Fieldwork—Physical Rehabilitation
0 credits. Twelve weeks of Level II Fieldwork experience in the area of physical rehabilitation. To be eligible to sit for the national certification examination, the student must achieve at least the minimum passing scores on the AOTA Fieldwork Evaluation. Further information on Level II Fieldwork can be found in the department student handbook and the Level II Fieldwork Student Manual. *Prerequisites: All academic course work, Occupational Therapy 398, and CPR certification. Occupational Therapy majors only.* Graded Pass/No Pass. Summer or fall semester.

598 Level II Fieldwork—Psychosocial Rehabilitation
0 credits. Twelve weeks of Level II Fieldwork experience in the area of psychosocial rehabilitation. To be eligible to sit for the national certification examination, the student must achieve at least the minimum passing scores on the AOTA Fieldwork Evaluation. Further information on Level II Fieldwork is in the department student handbook and the Level II Fieldwork Student Manual. *Prerequisites: all 100-300 level Occupational Therapy courses (except 371-379) and CPR certification. Occupational Therapy majors only.* Graded Pass/No Pass. Summer or Fall semester.

To accommodate the changing nature of occupational therapy practice and education, curricular and course offerings will change. The Department uses ongoing program outcome measures and strategic planning to drive positive curricular growth. Program requirements will be clearly communicated to current and prospective students. Please refer to the OT website and other Admissions materials for the most current program requirements.

Department of Philosophy

Professor: Matteo (*Chair*)
Associate Professors: Silberstein, G. Ricci

Bachelor Of Arts

Courses in the Department of Philosophy at Elizabethtown College are designed to explore fundamental issues of knowledge, value, and meaning. The program promotes critical inquiry into basic questions in epistemology, ethics, science, religion, aesthetics, and metaphysics. The members of the Department are dedicated to an interdisciplinary approach to philosophical questions that transcend the confines of narrowly drawn disciplinary boundaries.

Our goal is to produce a comprehensive familiarity with the historical answers that have been proposed to these questions as a basis for students to develop their own critical perspectives. The study of philosophy challenges students to nurture the capacity for critical analysis through forceful, logical argumentation in clear and consistent forms of oral and written expression. Historically, philosophy has been central to an education in a liberal arts institution. Therefore, the program at Elizabethtown is designed to give students maximum opportunity to combine the study of philosophy with other theoretical and practical disciplines in order to create a truly well rounded undergraduate educational experience.

Our primary goal is to educate students who will not only go on to successful professional careers but who will also cultivate the intellectual and moral fiber to live life well. A major in philosophy is an excellent preparation for those going on to graduate school and for those planning professional vocations such as law. It will prove valuable in any occupation which demands clear thinking, effective communication, and the ability to understand and harmonize divergent points of view. The Department of Philosophy at Elizabethtown College stresses interdisciplinary study and students have flexibility in determining their own particular programs.

Major

Those who major in philosophy, or who elect philosophy as a second major, will follow one of three possible tracks: Philosophy of Science, Professional Ethics, or

Humanities. The tracks combine six department-based courses, three courses from outside the department, and an interdisciplinary Senior Thesis.

Philosophy of Science track students will normally complete: Philosophy 115, 110, 201, 202, 213, a 370-level Special Topics Seminar in Philosophy of Natural or Social Science, and Philosophy 490. Students in the track will also be required to complete three sequential courses (100-300 level) in either Biology, Chemistry, Physics, Mathematics, Computer Science, or one of the Social Sciences. The advisor for this track is Dr. Silberstein.

Professional Ethics track students will normally complete: Philosophy 115, 110, 201 or 202, and two courses from Philosophy 255A, 255B, 255C, or 255D, a 370-level Special Topics Seminar in Ethical Theory and Philosophy 490. Students in this track will also be required to complete three sequential courses in a professional area of study such as Business, Communications, or Education. The advisor for this track is Dr. Ricci.

Humanities track students will normally complete: Philosophy 105, 110, 201, 202, 315 or 320, a 370-level Special Topics Seminar in Philosophy of Art or Literature (Aesthetics) and Philosophy 490. Students in this track will also be required to complete three sequential courses in another branch of the Humanities. The advisor for this track is Dr. Matteo.

Minor

Students pursuing a **Philosophy minor** normally completes Philosophy. 105, 110, 201 or 202, and an additional 200 and 300 level course in the department.

The Department of Philosophy participates in the College Honors in the Discipline program. For guidelines and details as to requirements, students should consult the department chair.

105 WCH Introduction to Philosophy

4 credits. **(Western Cultural Heritage Core Course)** A historical overview and a topical introduction to the Western philosophical tradition, the course concentrates on the most fundamental existential questions that confront us, and examines some of the great Western philosophers' answers to these questions throughout history. Great historical figures in Western philosophy such as Plato, Aquinas, Descartes and Hume are covered. Course topics and questions include: philosophy of religion, epistemology, metaphysics, and ethics. *This course also fulfills the 100 level Cultural Heritage Philosophy requirement of the 1990 Core program.* Prof. Silberstein

110 PL Logic and Critical Thinking - WRI

4 credits **(Power of Language Core Course)** An overview of key skills to be a critical thinker and of the various impediments to critical thinking with the central focus on critical thinking in real-world decision making. Students learn the difference between rhetoric and persuasion, and cogent reasoning. Students are trained in deductive and inductive patterns of reasoning, and learn to spot and evaluate such arguments in magazines, political speeches, advertising etc. Roadblocks to critical thinking (i.e. such as formal and informal fallacies, naïve ideas about the

reliability of memory/perception, social context/group think etc.) are covered *Prerequisite: Mathematics 011 (competency). A student who has received credit for English 150 to satisfy the Power of Language requirement may not enroll in Philosophy 110. Philosophy 110 is available only to those students with English 150 placement level. This course also fulfills the 100 level Power of Language requirement of the 1990 Core program.* A Writing and Research Intensive Course. Prof. Silberstein

111 PL Introduction to Classical Greek
4 credits. **(Power of Language Core Course)** A first experience with the Greek language with focus on the language and its social and cultural context. Students will explore classical Greek literature in its original language. Prof. Gottfried.

115 HUM Ethics
4 credits **(Humanities Core Course)** A study of the nature, origin, and development of ethical theories from both an historical and contemporary perspective and their relevance to significant current moral dilemmas such as abortion, euthanasia, capital punishment, and environmental issues. Special attention is given to the exploration of enduring moral concerns such as moral realism vs. relativism, egoism, altruism, the role of reason in ethics, and the nature of responsible moral decision-making. *This course also fulfills the 100 level Values and Choice requirement of the 1990 Core program.* Profs. Matteo and Ricci.

201 WCH History of Western Philosophy I
4 credits. **(Western Cultural Heritage Core Course)** Engagement in an in-depth survey of the central issues and thinkers in Western Philosophy in ancient, medieval and early modern periods. Special emphasis is placed on the works of major figures such as Plato, Aristotle, Augustine, Aquinas, Ockham, and Descartes with a view toward exploring their respective positions on critical questions in epistemology, metaphysics, ethics, politics, and aesthetics. *This course also fulfills the 200 level Cultural Heritage Philosophy requirement of the 1990 Core program.* Prof. Matteo.

202 WCH History of Western Philosophy II
4 credits. **(Western Cultural Heritage Core Course)** This course engages in an in-depth survey of the central issues and thinkers in the modern and contemporary periods. Special emphasis is placed on major figures such as Kant, Locke, Hume, Hegel, Nietzsche, Wittgenstein, and Heidegger with a view toward exploring their respective positions in regard to epistemology, metaphysics, ethics, politics, and aesthetics. *This course also fulfills the 200 level Cultural Heritage Philosophy requirement of the 1990 Core program. Students who have completed Philosophy 240 may not enroll in this course. Students who have completed Philosophy 310 must see the instructor before enrolling in this course.* Prof. Matteo

213 Philosophy of Science
4 credits. Fundamental issues in the Philosophy of Science such as the nature of scientific laws and explanation, the problem of induction, realism and anti-realism, and scientific progress will be treated. We will concern ourselves with questions such as: What claims are we justified in making within science? Do our best scientific theories give us a literally true account of the whole universe or an approximately true account? Are the entities studied by science really "out there in the world" or are they merely convenient fictions? *This course also fulfills the 200 level Natural World Philosophy non-laboratory requirement of the 1990 Core program.* Prof. Silberstein

255 (A-D) Advanced Ethics
4 credits. This four course sequence in Applied Ethics covers Business Ethics (A), Medical Ethics (B), Legal Ethics (C), and Environmental Ethics (D). In each course a theoretical foundation for ethical discourse within the respective field will be established. Each course then proceeds to a detailed treatment of central ethical dilemmas in the actual practice of Business, Medicine, Law, and Public Policy with regard to environmental use and protection. Profs. Danneker, Morris, Ricci

H255(D) HUM Honors Environmental Ethics
4 credits. **(Humanities Core Course - Honors)** This course in environmental ethics is designed to familiarize students with the range of positions that identifies the contemporary phenomenon of ecological consciousness. The historical framework for the course will highlight the perennial conflict between what environmentalists call First Nature (primordial physical nature) and Second Nature (culture and artifactual overlay). *This course fulfills the 200 level Natural World Philosophy lecture-only requirement of the 1990 Core program.* Spring semester. Prof. Ricci.

305 Philosophy of Law (Political Science 305)
4 credits. An analysis of the major underlying philosophical issues of both criminal and civil law. Special attention is given to natural law theory, legal positivism, epistemological foundations of legal reasoning and interpretation, and the moral foundations of retributive and distributive justice. Prof. McDonald

315 Philosophy, Film, and Literature
4 credits. An analysis of selected perennial issues in philosophy through the media of film and literature. Areas of investigation will include: the nature of Self and Reality, the nature of Knowledge, as well as issues in moral and political philosophy. Prof. Silberstein

320 Philosophy of Religion
4 credits. A study of the various rational efforts to establish the validity of the religious perspective. Topics include: the nature of religious experience, the relationship between faith and reason, the arguments for the existence of God, the

problem of evil, the possibility of miracles and immortality, and the relationship between religion and ethics, and religion and science. Prof. Matteo.

371-79 Special Topics in Philosophy
A series of specialized seminars within the field of philosophy doing advanced work in Philosophy of Natural and Social Science, Philosophy of Art, Ethical Theory, and Logic.

480-89 Independent Study
4 credits. *Prerequisite: Approval of Department chair and Independent Study Committee.*

490 Senior Thesis
4 credits. An individualized study project involving research of a topic and the preparation of a major paper. The paper is presented orally to the Philosophy department staff and interested persons. This is normally done during the Fall or Spring term of the senior year.

Department of Physical Education and Health

Professor: Kauffman
Associate Professor: Latimore (*Director of Athletics and Chair*)
Staff: Maloy, Miller, Roderick, Schlosser, Seward, Straub, Sweger

The Department of Physical Education and Health prepares students for a lifetime commitment to physical activity and well-being with an emphasis on individual fulfillment. Courses in physical education (1) develop positive attitudes and skills leading to physical fitness and health; (2) develop discipline and commitment to goals and, in team sports, to social and moral standards such as sportsmanship and teamwork; and (3) stress awareness of beneficial and harmful health practices as they relate to physical well-being and quality of life.

Students enrolled prior to August 2003 are required to take three credits of Physical Well Being courses, of which at least two must be activity courses. Students with an entrance year of 2003-2004 and after are not required to earn Physical Well Being credits to fulfill Core Program requirements. Physical well being courses may be used as free elective credit. No more than five credits of physical well being courses may be counted toward the graduation requirement.

105 Swimming
1 credit. Instruction in the four basic strokes, survival swimming, and water safety. *This course also fulfills the 100 level Physical Well Being activity requirement of the 1990 Core program.*

106 Water Aerobics
1 credit. Introduces the student to different means to obtain a cardiovascular workout in the water. *This course also fulfills the 100 level Physical Well Being activity requirement of the 1990 Core program.* Graded Pass/No Pass.

110 Physical Education for the Elementary School Child
2 credits. A study of physical education at the elementary school level, with instruction in games and activities that enhance the physical development of children ages 4-12. *The course also focuses on teaching techniques and organizational skills.*

110L Physical Education for the Elementary School Child Laboratory
1 credit. Students must enroll in both the lecture (Physical Education 110) and the laboratory (Physical Education 110L) to receive credit. Physical Education 110 counts as two credits of free electives; Physical Education 110L counts as one credit Physical Well Being activity course. *This course also fulfills the 100 level Physical Well Being activity requirement of the 1990 Core program.* Graded Pass/No Pass.

115 Physical Fitness and Wellness
1 credit. Instruction in cardiovascular-type activities, strength, flexibility, weight control, nutrition, myths, physical activity, injury prevention and rehabilitation, safety, fitness equipment, stress, relaxation, games, exercises, and the consumer-personalizing fitness, aerobic exercises. *This course also fulfills the 100 level Physical Well Being activity requirement of the 1990 Core program.*

118 Lifeguarding
1 credit. Provides lifeguard candidates and current lifeguards with the knowledge and skills necessary to keep the patrons of aquatic facilities safe in and around the water. Includes instruction in lifeguarding skills, CPR for the professional rescuer and first aid. *This course also fulfills the 100 level Physical Well Being activity requirement of the 1990 Core program.* Graded Pass/No Pass.

119 Scuba
1 credit. A total introduction to the use of SCUBA equipment and safety; includes work in the pool and classroom. Provides deep water dive certification by the Professional Association of Diving Instructors (PADI). *This course also fulfills the 100 level Physical Well Being activity requirement of the 1990 Core program.* Graded Pass/No Pass.

120 Aerobics
1 credit. Inspiration - perspiration: a diversified fitness program that will give a complete workout. *This course also fulfills the 100 level Physical Well Being activity requirement of the 1990 Core program.* Graded Pass/No Pass.

125 Tennis
1 credit. Rules, playing techniques, and skill development. *This course also fulfills the 100 level Physical Well Being activity requirement of the 1990 Core program.*

137 Outdoor Recreation
1 credit. Introduction to hiking, camping, orienteering and wilderness survival skills. *This course also fulfills the 100 level Physical Well Being activity requirement of the 1990 Core program.*

140 Bowling
1 credit. Rules, playing techniques, and skill development. *This course also fulfills the 100 level Physical Well Being activity requirement of the 1990 Core program.* Graded Pass/No Pass.

146 Racquetball
1 credit. Rules, playing techniques, and skill development. *This course also fulfills the 100 level Physical Well Being activity requirement of the 1990 Core program.*

150 Volleyball
1 credit. Rules, playing techniques, and skill development. *This course also fulfills the 100 level Physical Well Being activity requirement of the 1990 Core program.*

161-163 Adapted Physical Education
1 credit. Individual activity or collective exercise adapted to needs and abilities of the student. *This course also fulfills the 100 level Physical Well Being activity requirement of the 1990 Core program.* Graded Pass/No Pass. Prof. Sweger.

165 Golf/Badminton
1 credit. Rules, playing techniques, and skill development. *This course also fulfills the 100 level Physical Well Being activity requirement of the 1990 Core program.*

175 Archery/Badminton
1 credit. Rules, playing techniques, and skill development. *This course also fulfills the 100 level Physical Well Being activity requirement of the 1990 Core program.*

181-183 Self-directed Physical Education Activity
1 credit. For the student who has extenuating circumstances which prohibit the person from meeting regularly scheduled physical education classes. *This course also fulfills the 100 level Physical Well Being activity requirement of the 1990 Core program.* Graded Pass/No Pass. Prof. Latimore.

185 Basketball
1 credit. Rules, playing techniques, and skill development. *This course also fulfills the 100 level Physical Well Being activity requirement of the 1990 Core program.* Prof. Schlosser.

190 Horsemanship
1 credit. Basic riding positions, balance, equine safety. Discuss equine behavior, care, tack, styles, and management. *This course also fulfills the 100 level Physical Well Being activity requirement of the 1990 Core program.* Graded Pass/No Pass.

194 Skiing
1 credit. *This course also fulfills the 100 level Physical Well Being activity requirement of the 1990 Core program.* Graded Pass/No Pass.

195 Soccer
1 credit. Rules, playing techniques, and skill development. *This course also fulfills the 100 level Physical Well Being activity requirement of the 1990 Core program.* Prof. Roderick.

218 Water Safety Instruction
1 credit. This course follows American Red Cross certification procedures. *This course also fulfills the 100 level Physical Well Being activity requirement of the 1990 Core program.* Graded Pass/No Pass.

Department of Physics and Engineering (Including Earth Science)

Professor: Stuckey
Associate Professors: Ferruzza (*Director of Engineering Programs*), Gravé, Scanlin
Assistant Professors: DeGoede(*Chair*), McBride, Wunderlich
Lecturer: Fullerton

Bachelor of Arts, Bachelor of Science

Programs in the Department of Physics and Engineering are designed to convey an appreciation and understanding of physical and natural systems and to prepare students for professional careers in science and technical fields. In accord with the philosophy that both majors and nonmajors should be broadly exposed to studies of natural phenomena, the department offers a variety of formal courses and informal learning experiences, all intended to cultivate an ability for continuing self-education. Analysis, problem solving, and hands-on experience are emphasized at all instructional levels.

Students majoring in the department commonly go on to graduate school or to careers in physics, engineering, or education.

Programs in Physics

Programs in physics lead to the bachelor of science degree.

The **Physics major** is preparation either for graduate school or for the technical job market. Physics majors are required to take Physics 200, 201, 202, 221,

301, 302, 321, 353, 421, 422, 491, and 492; Mathematics 121, 122, 201, 222, and 321; Chemistry 105 and 113; Computer Science 121; and Engineering 210.

The **Engineering Physics major** is a practical program designed to lead to a technical career in industry, or graduate school in engineering. Engineering Physics majors are required to take Physics 200, 201, 202, 221, 301, 302, 321, and 353; Mathematics 121, 122, 201, 222, and 321; Engineering 100, 110, 210, 262, 263, and 491; Computer Science 121; Chemistry 105 and 113; and Economics 101.

The **Secondary Education major** in Physics and the General Science Education major (with a concentration in physics), offered in conjunction with the Education department, lead to Pennsylvania teacher certification at the secondary level.

Secondary Education majors in Physics are required to take Physics 200, 201, 202, 221, and 321; Earth Science 113 or 114; Engineering 210; Chemistry 105 and 113; Biology 101 and 103; Mathematics 121, 122, and 222; Computer Science 121; and Education 105, 150, 215, 265, 275, 295, 305, 380, 470, and 490.

General Science Education majors (with a concentration in physics) fulfill the course requirements listed in Interdisciplinary Programs under General Science Certification.

Physics minors are required to take Physics 200, 201, 202, 221, and six additional credits in physics.

Four-year Engineering Programs

The Elizabethtown College four-year Engineering programs, which lead to the bachelor of science degree, are preparation for technical careers in industry.

The **Computer Engineering major** combines studies of engineering and computer technology, including both hardware and software. Computer Engineering majors are required to take Physics 200, 201, 202, and 302; Computer Science 121, 122, and 221; Engineering 100, 110, 210, 220, 230, 310, 332, 333, 410, 422, 433, and 491; Chemistry 105; and Mathematics 121, 122, 201, 222, and 321.

The **Industrial Engineering major** combines engineering physics with business administration. Industrial Engineering majors are required to take Physics 200, 201, 202, and 321; Engineering 100, 110, 210, 261, 411, and 491; Mathematics 121, 122, 201, 222 and 251; Accounting 270; Computer Science 121; Chemistry 105 or 113; Economics 101 and 102; Business Administration 265, 466, and either 330 or 333; either Business Administration 248 or Mathematics 331; English 282; and Psychology 105.

3+2 Engineering Programs

Engineering majors in the 3+2 program study for three years at Elizabethtown College and two years normally at the College of Engineering at The Pennsylvania State University. Upon completion of course requirements, the bachelor of arts degree is awarded by Elizabethtown College and the bachelor of science degree by the Penn State College of Engineering. Students in the 3+2 program who maintain a 3.0 cumulative grade point average (3.5 for aerospace engineering, bio-

engineering, computer engineering and mechanical engineering) at Elizabethtown College are guaranteed admission to the College of Engineering at The Pennsylvania State University.

At Elizabethtown College, Engineering students in the 3+2 program are required to take Physics 200, 201, 202 and 221; Engineering 100, 110, 210, and 262; Mathematics 121, 122, 201, 222, and 321; Chemistry 105; Computer Science 121; Economics 101; English 100 or 150, and 282; and three of the following six courses: Engineering 220, 263, 264, Physics 302, 321, 353.

Students in the 3+2 engineering program are allowed to double-count English 100 (or 150) for Power of Language Core and major, and Mathematics 121 for Mathematics Core and major. Additionally, Physics 200 and Chemistry 105 substitute for the two required courses in Natural and Physical Sciences Core, and Economics 101 substitutes for the Social Sciences Core requirement. 3+2 engineering students are excused from one Core course (not to include First Year Seminar or any of the double-count or substitution courses) and are allowed to take up to 19 credits in up to three of the six semesters they study at Elizabethtown without paying a credit overload fee.

The Department of Physics and Engineering participates in the College Honors in the Discipline program. For guidelines and details as to requirements, the student should consult the department chair.

Physics

103 General Physics I

4 credits. A study of the principles of physics, including mechanics (motion, equilibrium, work, energy, momentum), fluids, heat, and oscillatory motion. Hours: lecture 3, discussion 1, laboratory 2. *Prerequisite: high school algebra. Students who have credit for Physics 200 may not enroll in this course for credit. This course also fulfills the 100 level Natural World Physics requirement of the 1990 Core program.* Fall semester.

104 General Physics II

4 credits. Continuation of Physics 103. Topics include waves, sound, electricity and magnetism, geometric optics, and radioactivity. Hours: lecture 3, discussion 1, laboratory 2. *Prerequisite: Physics 103. Students who have credit for Physics 201 may not enroll in this course for credit.* Spring semester.

105 NPS How Things Work

4 credits. **(Natural and Physical Sciences Core Course)** Based on activities experienced in daily life, students will learn several physical concepts. By experiencing science at work students become more comfortable with it and will understand the predictable nature of the universe and dispel the "magic" of science and technology. Students learn how various technologies work and will develop their physical intuition of the world. Topics include: amusement park rides, bicycles, baseball, human movement, automobiles, clocks, musical instruments, audio amplifiers, radio, lasers, cameras, computers, copiers, power generation and distri-

bution, and nuclear reactors. Course will include a two-hour laboratory component each week. Hours: lecture 3, laboratory 2. Prof. DeGoede.

200 College Physics I
4 credits. Introduction to the basic concepts of mechanics, classical kinematics and dynamics (linear and rotational motion, work and energy, impulse and momentum), friction, statics, and universal gravitation. Hours: lecture 3, discussion 1 laboratory 2. *Co- or Prerequisite: Mathematics 121. Students who have credit for Physics 103 may not enroll in this course for credit. This course will also fulfill the 200 level Natural World Physics requirement of the 1990 Core program.* Prof. Ferruzza.

201 College Physics II
4 credits. A continuation of Physics 200. Introduction to the basic concepts of electricity and magnetism. Covering topics on fields, waves, potential, current, resistance, capacitance, inductance, direct current circuits, and alternating current circuits. Hours: lecture 3, discussion 1, laboratory 2. *Prerequisite: Physics 200. Students who have credit for Physics 104 may not enroll in this course for credit.* Spring semester. Prof. Gravé.

202 College Physics III
4 credits. Introduction to oscillations, fluids, thermodynamics, geometric optics, interference, diffraction, and special relativity. The laboratory introduces numerical analysis and iterative solutions. Hours: combined lecture/discussion 4, laboratory 2. *Prerequisite: Physics 200.* Fall semester. Prof. McBride.

212 Astronomy
4 credits. A study of the structure and evolution of stars, planetary systems, galaxies and the universe. Less familiar astronomical objects such as black holes, quasars, cosmic strings, texture, and wormholes are also studied. Laboratories provide an opportunity to observe planets, stars, clusters, and galaxies; they also provide practical experience in determining astronomical quantities. Hours: lecture 3, laboratory 2. *This course also fulfills the 200 Level Natural World Earth Sciences 1990 Core program requirement.* Prof. Stuckey.

215 Introductory Acoustics
3 credits. A study of the fundamentals of musical sound produced by wind and string instruments. Vibrational and oscillatory motion, waves, types of sound, science and aesthetics, scales, pitch, beats, power and loudness, consonance, dissonance, chords, and harmony are covered. *Prerequisite: While they needn't be proficient, students must be able to produce specific notes (e.g., Bb or C#) on a wind or string instrument of their choice (to include human voice). This course also fulfills the 1990 Core program Creative Expression 200 Level requirement.* Prof. Stuckey.

221 Modern Physics (Chemistry 343)
3 credits. Twentieth-century developments in the structure of the atom. Topics include X-rays, radioactivity, atomic spectra, blackbody radiation, introduction to quantum theory emphasizing the extranuclear structure of the atom, elementary particles, nuclear structure, and transformations. *Prerequisites: Physics 201, Mathematics 122.* Fall semester. Prof. Hoffman.

301 Mechanics (Engineering 263)
3 credits. Newtonian mechanics of particles, a system of particles and of rigid bodies in fixed and moving reference frames in three dimensions. Topics include: energy and momentum concepts, Euler's equations, and the simple oscillator. With applications to mechanical systems. *Prerequisite: Physics 202; Co- or prerequisite: Mathematics 222.* Spring semester. Prof. DeGoede.

302 Electromagnetism
3 credits. An intermediate course in electromagnetism including electro- and magnetostatics and dynamics, Maxwell's equations, macroscopic fields, electromagnetic waves, and special relativity. *Prerequisite: Physics 201; Co- or Prerequisite: Mathematics 321.* Fall semester, even-numbered years. Prof. Gravé.

321 Thermodynamics
3 credits. Properties of pure substances, equations of state, laws of thermodynamics applied to analysis of closed systems and control volumes. Emphasis on macroscopic thermodynamics and engineering applications. *Prerequisite: Physics 202.* Spring semester, even-numbered years. Prof. Ferruzza.

353 Advanced Physics Laboratory (Chemistry 353)
4 credits. Experimentation, data acquisition, data analysis, and technical presentations appropriate for the physical and chemical sciences. Emphasis on statistics of physical/chemical experimental data and computer methods of analysis, including electronic laboratory notebooks and computer networks. Hours: lecture 2, laboratory 6. *Prerequisites: Physics 201, Mathematics 121.* Fall semester. Prof. Hoffman.

371-379 Topics in Physics
Variable credits. Topics in physics not covered in other courses. *Prerequisite: permission of the instructor.*

421, 422 Quantum Physics I, II
3 credits each. Quantum theory including the formalisms of Schrodinger, Heisenberg, and Dirac, the uncertainty principles, quantum solutions to problems in classical mechanics, spin-1/2 systems, scattering theory perturbation theory, atomic physics, Bose-Einstein and Fermi-Dirac statistics for many-particle systems, and the interaction of radiation with matter. *Prerequisites: Physics 221, 301, and 302.* Offered as needed.

423 General Relativity
3 credits. An introduction to calculus on manifolds, differential topology, exterior calculus, affine geometry, Riemannian geometry, special relativity, and general relativity with applications to relativistic cosmology. *Prerequisites: Mathematics 122 and 201, or permission of instructor.* Offered as needed. Prof. Stuckey.

481-489 Independent Study
Variable credits. Study and experimentation in an area of interest to the student and faculty member. *Prerequisite: Approval of chair and Independent Study Committee.*

491, 492 Research I, II
3 credits each. An original experiment or theoretical investigation performed under the close supervision of a faculty member. A written thesis and a public seminar are required. Hours: laboratory 6. *Prerequisite: permission of the instructor.*

Earth Science

113 NPS Earth in Space: Evolution of a Planet
4 credits. **(Natural and Physical Sciences Core Course)** A broad introduction to Earth System Science integrating basic topics in geology and astronomy to understand the origin and evolution of planet Earth. Dramatic events and processes that shaped Earth history, such as big bang cosmology, stellar evolution, planetary formation, plate tectonics, the rock cycle, crustal deformation and mountain building, the evolution of continents and ocean basins, earthquakes, and volcanism are explored. Practical aspects are learned through discovery-oriented exercises including field trips to local geological sites, the local planetarium and several stargazing sessions for firsthand study of materials containing evidence for the processes and events studied in class. Hours: lecture 3, laboratory 2. *This course also fulfills the 100 level Natural World Earth Science lecture/laboratory requirement of the 1990 Core program.* Fall semester. Profs. Scanlin, Stuckey.

114 NPS Geosystems: Landscapes, Oceans and Atmosphere
4 credits. **(Natural and Physical Sciences Core Course)** Introduction to geology and meteorology, presenting Earth as an intricately coupled system that makes life possible. Landscapes, plate tectonics, oceans and atmosphere, chaos and weather prediction, climates and patterns of change, and landscape modification by the hydrologic system. Discovery-oriented lab includes field trips to geological sites. Hours: lecture 3, laboratory 2. *This course also fulfills the 100 level Natural World Earth Science lecture/laboratory requirement of the 1990 Core program.* Spring semester. Profs. Scanlin, Ferruzza.

215 Meteorology
3 credits. General studies of weather and associated atmospheric phenomena, their causes, effects, and geographic distribution. *This course also fulfills the 200 level Natural World Earth Sciences lecture only requirement of the 1990 Core program.* Prof. Ferruzza.

215L Meteorology Laboratory
1 credit. Experiments to illustrate meteorological concepts. Introduction to analysis techniques. *Co- or Prerequisite: Earth Science 215. This course also fulfills the 200 level Natural World Earth Sciences laboratory-only requirement of the 1990 Core program.* Spring semester. Prof. Ferruzza.

216 Physical Geography
3 credits. Introduction to the physical bases for geography including earth/sun relationships, map projections, weather patterns, climates, and landforms. *Prerequisites: education major, or permission of the instructor.* Spring semester. Prof. Scanlin.

Engineering

100 Introduction to Engineering I
2 credits. Introduction to the study, practice, and various branches of engineering, including problem solving, teamwork, project management, design, statistics, solution of equations, and technical writing. Includes a design project, guest speakers and plant tours. Hours: combined lecture/discussion/laboratory 4. Fall Semester.

110 Introduction to Engineering II
2 credits. Introduction to graphical communication including sketching, ideation, and computer aided modeling. Development of mathematical techniques for engineering applications using Matlab, and a study of engineering ethics. Continued exploration of the engineering design process including a design and build project. Hours: combined lecture/discussion/laboratory 4. *Prerequisite: Engineering 100.* Spring semester.

210 Circuit Analysis
4 credits. Introduction to linear circuit analysis and basic electric circuit components. Topics covered include DC analysis, AC analysis, and transient analysis for circuits containing resistors, inductors, capacitors, and diodes. *Prerequisite: Physics 201.* Hours: lecture 3, laboratory 3. Fall semester. Prof. Gravé.

220 Electronics
4 credits. Practical and theoretical study of fundamental components and circuits, including transistors, diodes, integrated circuits, power supplies, filters, amplifiers, control circuits, and some digital electronics. Hours: lecture 3, laboratory 3. *Prerequisite: Engineering 210.* Spring semester, odd-numbered years. Prof. Gravé.

230 Microcomputer Architecture (Computer Science 230)
4 credits. Microcomputer operation, physical characteristics of its architecture, and the implementation of software are discussed. The UNIX, Macintosh, and IBM operating environments are explored. Topics include: computer ethics, hardware components such as memory registers, central processor types, controllers, peripherals such as disk drives and tape drives, ASCII code implementation, input/out-

put architecture and devices, memory management, networking, and multimedia. *Prerequisite: Computer Science 122.* Prof. Wunderlich.

262 Statics
3 credits. Equilibria of particles and rigid bodies subject to concentrated and distributed forces with practical applications to the design of mechanical structures. Topics include: structural analysis, internal forces, friction, inertial properties and virtual work. *Prerequisite: Physics 200.* Fall semester. Prof. DeGoede.

263 Dynamics (Physics 301)
3 credits. Newtonian mechanics of particles, a system of particles and of rigid bodies in fixed and moving reference frames in three dimensions. Topics include: energy and momentum concepts, Euler's equations, and the simple oscillator. With applications to mechanical systems. *Prerequisite: Physics 202; Co- or Prerequisite: Mathematics 222.* Spring semester. Prof. DeGoede.

264 Strength of Materials
3 credits. Deformation and behavior of materials under load to the point of fracture with applications to the design of physical systems. Topics include: axial stress and strain; torsion; pressure vessels; stresses in beams; elastic curves and deflection of beams; combined stress; buckling of columns; an introduction to energy methods. *Prerequisite: Engineering 262.* Spring semester, odd numbered years. Prof. DeGoede.

310 Signals and Systems
3 credits. Analysis of continuous-time linear systems, discrete-time linear systems, and methods of signal sampling and reconstruction. Applications of Fourier Series, Fourier Transform, and Laplace Transform. Exploration of digital signal processing using Matlab programming. *Prerequisite: Engineering 220.* Fall semester, even-numbered years. Prof. McBride.

332 Computer Organization and Architecture (Computer Science 332)
4 credits. Introduction to Boolean algebra, design of combinational and sequential circuits, and their use in von Neumann computer architecture. Basic parts of computer systems including memory, control and input-output systems are studied. The student is expected to design a simple micro-programmed computer. *Prerequisite: Computer Science 221.* Fall semester. Prof. Wunderlich.

333 Digital Circuits and Computer Interfacing (Computer Science 333)
4 credits. Digital logic and integrated circuits to implement logic; architecture and machine language programming of minicomputers and microprocessors; design, testing, and construction of instrument-to-computer and computer-to-instrument interfaces; design and testing of supporting software. *Prerequisites: Computer Science 122 and 332, or permission of the instructor.* Spring semester, odd-numbered years. Prof. Wunderlich.

410 Control Systems
3 credits. Design and analysis of continuous time-domain control systems using system modeling techniques and simulation software for control algorithms. Evaluation of control system performance and design criteria including feedback, stability, sensitivity, time and frequency response. Introduction to similar topics in the discrete-time domain. *Prerequisite: Mathematics 201, or permission of the instructor.* Spring semester, even-numbered years. Prof. DeGoede.

411 Current Industrial Engineering Methods
3 credits. Production management with emphasis on process improvement, cost reduction, incentives, and ergonomics. *Prerequisites: Business Administration 248 and permission of the instructor.* Offered as needed.

422 Operating Systems and Systems Programming (Computer Science 422)
4 credits. An examination of the principles and theories behind the design of operating systems as well as their practical implementation. Topics include: executives and monitors, task handlers, scheduling algorithms, file handlers, device drivers and interrupt handlers, theories of resource allocation and sharing, multiprocessing and interprocess communication. *Prerequisite: Engineering 332.* Spring semester, even numbered years.

433 Advanced Computer Engineering
4 credits. Laboratory course for senior/junior students studying computer engineering. Circuit level design and implementation of a complete microcomputer system, including microprocessor characteristics and interfacing, clock generator circuits for microprocessors, bus structures and design, input/output systems, memory systems and interfacing, static RAM, ROM and its programming, and low level programming of a microprocessor. Major laboratory project requires students to design, build, test and demonstrate a complete microcomputer based system. Hours: lecture 3, laboratory 3. *Prerequisites: Computer Science 221: Engineering 332.* Spring semester, even-numbered years. Prof. Wunderlich.

491 Senior Project in Engineering
3 credits. A demanding, and perhaps original, engineering project performed under close supervision of a faculty member. Progress reports, a final report, and a public seminar are required. *Prerequisite: permission of the instructor.*

Political Philosophy and Legal Studies Major

See Interdisciplinary Programs, page 211.

Department of Political Science

Professors: Gottfried, McClellan (*Chair*), McDonald, Selcher
Assistant Professor: Kelly-Woessner

Bachelor of Arts

The Department of Political Science is dedicated to promoting scholarship, leadership and civic involvement. Grounded in the liberal arts, the political science major exposes students to the principal subfields of the discipline – American government, comparative government, international relations, political theory, public administration and research methods – and develops writing, oral expression, analytical and critical thinking skills. The Department utilizes three approaches to the study of politics and government: the normative approach considers the values and ethical choices inherent in public policy; the empirical approach analyzes how political systems function; and the policy-oriented approach encourages the individual to engage in responsible and informed actions as a citizen.

A **major in political science** prepares students for careers in law, public administration, management, campaigns and elections, issue advocacy, communications, the diplomatic corps and many other exciting fields in the public, private and non-profit sectors. Beyond its worth in career terms, the study of politics and government can lead to more effective pursuit of a person's political interests as a civic responsibility or as an avocation.

The **Political Science major** requires the following courses: Political Science 111, 150, 223 or 224, 230, 245, and 498; an additional 20 credits of political science courses; and participation in a for-credit experiential learning or off-campus study program approved by the Department and the Office of Registration and Records. Examples of such programs include: the Department's Capital Semester Internship Program (Political Science 471), the International Study Centre at Herstmonceux Castle, the American University Washington Semester Program, Brethren Colleges Abroad programs, the Elizabethtown College Oxford University Summer Program, and May term international experiences sponsored by individual faculty and departments. Approved political science courses in these off-campus programs will count toward the major.

A **Political Science minor** requires 20 credits of course work. The following courses are required: Political Science 111, 150 or 245, 223 or 224, and eight additional credits in political science, at least four of which must be at the 300 or 400 level.

The Department participates in the secondary school certification in the Citizenship Education program, the Forestry and Environmental Management major, and the Environmental Science major, offering a public policy concentration.

The Department participates in the College Honors in the Discipline program. For guidelines and details as to requirements, the student should consult with Prof. Wayne Selcher, Departmental Honors Coordinator.

For information about the American University Washington Semester Program or internship opportunities in Harrisburg through the Department's Capital Semester Internship Program (Political Science 471), students should contact Prof. E. Fletcher McClellan.

111 SSC American National Government
4 credits. **(Social Sciences Core Course)** Analysis of the development of the U.S. Constitution, the federal system, civil rights and liberties; public opinion, political organizations, and elections; the presidency, Congress, federal bureaucracy and courts; and the public policy-making process. *This course also fulfills the 100 level Social World Political Science requirement of the 1990 Core program.* Profs. Kelly-Woessner, McClellan.

150 Introduction to Comparative Politics
4 credits. A comparison and contrast of the political systems of selected foreign nations, emphasizing the historical development of party systems, political cultures, and executive-legislative relations. *Students who have received credit for Political Science 351 may not enroll in this course.* Spring semester. Prof. Selcher.

205 WCH Western Political Heritage - WRI
4 credits. **(Western Cultural Heritage Core Course)** A critical assessment of the ideas and selected original works of leading Western social and political thinkers since Plato. Justice, equality, war and peace, rights, freedom, order and community are among some of the ideas to be examined from a variety of critical and historical perspectives. *This course is for nonmajors only. This course also fulfills the 200 level Cultural Heritage requirement of the 1990 Core program.* A Writing and Research Intensive Course. Prof. McDonald.

215 Politics in Fiction and Film
3 credits. An examination of concepts and theories of government as they are illustrated in popular fiction and film. Particular emphasis will be given to such topics as equality, justice, conflict resolution, terrorism, and the role of the media. *This course fulfills the 200 level Values and Choice requirement of the 1990 Core program.* Prof. McDonald.

223 History of Western Political Thought I: Ancient to Renaissance
4 credits. A survey of major political thinkers from Plato through Machiavelli. Self, politics, nature, order, and freedom are among the topics examined. Fall semester. Prof. McDonald.

224 History of Western Political Thought II: Enlightenment to the Moderns
4 credits. Major political thinkers in the West and their writings from Thomas Hobbes to the present. Self, justice, equality, rights, sovereignty, and freedom are among the topics examined. Spring semester. Prof. McDonald.

230 Research Methods (Social Work 330)
4 credits. Techniques of empirical political research and the development of modern methods of analysis and data presentation in political science with reference to contributions from other social sciences. A major research project on method-

ology is required. *Students who have received credit for Political Science 330 may not enroll in this course.* Spring semester. Prof. Kelly-Woessner.

245 NCH International Relations
4 credits. **(Non-Western Cultural Heritage Core Course)** Survey of the basic units of analysis, concepts, and principles of global international relations with emphasis on the formulation and implementation of foreign policy in the context of political, economic, military, and cultural factors. *This course also fulfills the 200 level Foreign Cultures and International Studies requirement of the 1990 Core program.* Prof. Selcher.

252 NCH Latin American Society
4 credits. **(Non-Western Cultural Heritage Core Course)** A study of Latin American sociocultural formation in its historical, political, and economic dimensions with comparison to and contrast with the United States' experience and consideration of current social issues. *This course also fulfills the 200 level Foreign Cultures and International Studies requirement of the 1990 Core program.* Spring semester. Prof. Selcher.

301 Mock Trial I
1 credit. To prepare and conduct a criminal jury trial in American Mock Trial Association regional and national competition. *May only be taken once for credit.* Fall semester. Prof. Morris.

302 Mock Trial II
1 credit. To prepare and conduct a criminal jury trial in the American Mock Trial Association regional and national competition. *Prerequisite: Political Science 301. May only be taken once for credit.* Spring semester. Prof. Morris.

305 Philosophy of Law (Philosophy 305)
4 credits. An analysis of the major underlying philosophical issues of both criminal and civil law. Special attention is given to natural law theory, legal positivism, epistemological foundations of legal reasoning and interpretation, and the moral foundations of retributive and distributive justice. Prof. McDonald.

311 Constitutional Law
4 credits. History and development of the U.S. Constitution. Evaluation of leading Supreme Court decisions with emphasis on current decisions and cases in the light of history and of possible future trends. Spring semester, 2005. Prof. Melvin.

313 The American Presidency
4 credits. An examination of the development of the modern presidency as institution, symbol, and policy-maker. Topics to be covered include the nature of presidential power, the institutional presidency, relations with the public and govern-

mental institutions in the U.S., and policy leadership in foreign and domestic affairs. *Prerequisite: Political Science 111.* Spring semester, 2005. Prof. McClellan.

314 Legislative Process and Behavior
4 credits. An exploration of the American legislative process, operating procedures of the United States Congress, and factors that influence congressional decision-making, including constitutional constraints, congressional rules, and members' own drives and ambitions. A substantial portion of the course will emphasize the techniques and methods researchers employ in the study of Congress. *Prerequisite: Political Science 230 or permission of instructor.* Spring semester, 2006. Prof. Kelly-Woessner.

315 Public Opinion and Political Behavior
4 credits. An examination of opinion formation and predictors of political behavior. Topics include measurement of public opinion, stability and strength of opinions, the impact of public opinion on the political process, mass political behavior, voting behavior and collective action dilemmas. *Prerequisites: Political Science 230, or permission of the instructor.* Prof. Kelly-Woessner.

316 The American Electoral Process: Campaign 2004
4 credits. Analysis of the process of recruiting, nominating, and electing candidates for national office in the U.S., the major participants in national elections, and the impact of elections on public policy-making. Fall semester, 2004. Prof. McClellan.

318 Mass Media and American Politics
4 credits. Analysis of the role and influence of the mass media in American politics, emphasizing the development of the media industry and its relations with government, the political communications process, and the impact of the media on public opinion, elections, and public policy-making. Prof. Kelly-Woessner.

323 Politics Through Film and Literature
4 credits. A study of political novels and films and how these art forms have significantly shaped our understanding of politics. Democracy, totalitarianism, social inequality, terrorism, justice, and the rule of law are among some of the topics examined. Prof. McDonald.

324 Modern Ideologies
4 credits. A survey of Marxism, socialism, anarchism, liberalism, libertarianism, Islamic fundamentalism, feminism, and conservatism, and an analysis of the motives and goals of their major proponents. Prof. McDonald.

326 American Political Thought
4 credits. Historical analysis of major American political thinkers from the Puritans to the present with special consideration given to the founding principles of the American republic. Fall semester, 2004. Prof. McDonald.

328 Politics and Religion
4 credits. Analysis of the relationships between forms of government and religious attitudes and practices with emphasis on the influence of religion on political life and of religious interpretations of politics. Prof. Gottfried.

329 American Democracy and Its Critics
4 credits. An exploration of recent critical literature on American democracy and on contemporary democratic regimes in general. Discussions will center on the similarities and differences among the political commentators who will be featured. Fall semester, 2004. Prof. Gottfried.

345 American Foreign Policy
4 credits. Emphasis on the 1990s and beyond, with consideration of major international challenges and opportunities facing the United States, social and governmental processes in foreign policy decision-making, and the large role of American society and the private sector in the United States' presence in the world. Fall semester. Prof. Selcher.

348 Public International Law
3 credits. Interactions among governments, organizations, and individuals in the world community regarding the sources and modern development of international law.

361 Public Administration
4 credits. A study of the role and influence of executive branch departments and agencies in American politics, government and policy-making. Differences between public and private sector leadership, decision-making, communications, organization, budgeting and human resource management will be emphasized. Fall semester. Prof. McClellan.

363 American Domestic Policy
4 credits. An examination of the development and impact of selected public policies in health care, welfare, education, energy and the environment. Students will conduct policy analyses, making use of information resources in the Harrisburg area. Prof. McClellan.

365 Women and Politics
4 credits. Examination of the role of women in the political process. Topics include feminist theory, the development of the women's movement, participation

of women in the political process as voters and elected officials, and public policy issues affecting women including the feminization of poverty, reproductive rights, and equality in the workforce. Fall semester, 2004. Prof. Kelly-Woessner.

370-379 Special Topics
3-4 credits. Topical areas and problems of political science, subjects chosen in accord with student demand.

471 Capital Semester Internship
4-8 credits. Applied field experience in politics and public administration for state or local government agencies, the state legislature, and private political organizations. Normally, four credits are given to internships contracted for two regular office-hour days a week. Full-time internships receive eight hours of credit. *Prerequisites: permission of the instructor, Political Science 361, junior or senior status.* Spring semester. Prof. McClellan.

480-489 Independent Study
Variable credit. Designed to offer independent study to advanced students, making use of techniques of political science in specific problem areas not included in the Department's regular offerings. *Prerequisite: Approval of Department chair and the Independent Study Committee.*

498 Senior Seminar
4 credits. An integrative, capstone course in political science, in which significant controversies in political theory and practice will be discussed and analyzed. An original research paper of at least twenty pages is required. *Prerequisite: Senior status or permission of the instructor.* Fall semester. Prof. Gottfried.

499 Senior Project
4 credits. An individualized study project involving research of a topic and the preparation, and defense, of a major paper or project in consultation with the student's honors advisor and the Department faculty. *Completion of this course does not assure recognition for Honors in the Discipline. Prerequisite: Invitation to Honors in the Discipline Program and Political Science 498*. Spring semester. Prof. Selcher.

Pre-Law Program
See Interdisciplinary Programs, page 211.

Premedical Programs
See Interdisciplinary Programs, page 201.

Department of Psychology
Professors: Dennis, Rider, Teske (*Interim Chair 2004-2005*)

Associate Professors: Lemley, Ruscio
Assistant Professor: Price

Bachelor of Arts

The Psychology Department offers preparation for careers in human services and education and preparation for graduate and professional training in clinical, experimental, and applied psychology, and related fields. Students learn the principles and theories of psychology as currently understood and acquire the ability to derive new principles. Students are required to participate in topical and methodological studies, and may participate in field experience and research. All courses for the major include traditional learning in the classroom as well as learning outside the classroom. To determine meeting times and places, refer to the master schedule of courses provided during the registration period.

The Department offers a **Psychology major** which requires the following courses: Psychology 105, 213, 218, and 402; one of the following: 221, 225, 235, 241; one of the following: 317, 321, 341; any two of the following: 413, 414, 425, or 435; eight additional credits of psychology courses; one biology course and one philosophy course.

A Psychology minor is offered in two tracks, General Theory and Methods and Child Psychology.

General Theory and Methods Psychology minor track requires the following courses: Psychology 105, 213, and twelve additional credits of psychology courses, at least four of which are to be in upper division (300/400) courses. Students are encouraged to tailor their selection of courses to their personal and career goals in consultation with a member of the psychology faculty.

Child Psychology minor track requires the following courses: Psychology 105, 225, 325, 333, and four additional credits of psychology courses.

The Department also participates in the Social Sciences Certification program. For more information, see the interdisciplinary section of the catalog.

The Department of Psychology participates in the College Honors in the Discipline program. For guidelines and details as to requirements, the student should consult the Department chair.

105 SSC General Psychology
4 credits. **(Social Sciences Core Course)** An introduction to psychological science, including methods of inquiry, learning and motivation, abnormal behavior, developmental and social influences, cognition, sensation and perception, neuroscience, and personality. *This course also fulfills the 100 level Social World requirement of the 1990 Core program.*

111 NPS Introduction to Neuroscience
4 credits. **(Natural and Physical Sciences Core)** A survey of the biological basis of psychological processes, including neurons and brain organization, the

endocrine system, motor control, higher cortical functions and dysfunctions in order to provide an integrated understanding of the brain and behavior. Recovery from brain damage, sexual behavior, emotion, language, mood disorders, schizophrenia and additional related topics are also covered. Includes virtual laboratory work and simulation. *This course also fulfills the 100 level Natural World requirement of the 1990 Core program.* Profs. Lemley, Price.

209 HUM Psyche and Film - WRI
4 credits. **(Humanities Core Course)** Explores evolutionary and historical contributions to the concept of "psyche," as it develops in philosophical, moral, and scientific understanding. It comes to include identity and character, inwardness, hiddenness, and external life of behavior and language, and the creative invention of self and world. In the contemporary era, this inheritance can be explored more fully via the medium of film, which may itself be transforming how we understand ourselves. A Writing and Research Intensive course. Spring semester. Prof. Teske.

213 Research Methods and Statistics I
4 credits. Design and analysis of experimental research. Emphases include issues in philosophy of science, consideration of rival hypotheses, and research ethics. Hours: lecture 3, laboratory 2. *Prerequisite: Psychology 105*. Fall semester. Prof. Ruscio.

218 Research Methods and Statistics II
4 credits. Design and analysis of correlational research. Emphases include measurement and statistical power, inferences of causality, and scientific writing. Hours: lecture 3, laboratory 2. *Prerequisite: Psychology 213*. Spring semester. Prof. Ruscio.

221 Abnormal Psychology
4 credits. A study of mental disorders including schizophrenic, substance abuse, anxiety, and psychosexual disorders. Research and theories regarding diagnoses, causes, and treatments are reviewed. *Prerequisite: Psychology 105*. Spring semester. Prof. Dennis.

225 Developmental Psychology
4 credits. Physical, perceptual, linguistic, intellectual, and social-emotional human development, covering the periods of infancy, childhood, adolescence, adulthood, and old age. Various options for the course project include off campus observations of children and a developmental autobiography. *Prerequisite: Psychology 105*. Fall semester.

235 Social Psychology
4 credits. Survey of issues, theories, and methods in understanding the processes by which social life constitutes, influences, and is composed of the thoughts, feelings, and behavior of human beings. Topics include social explanation, social cognition and attribution, the dynamics of self, social influence, persuasion, aggression, innovation, interpersonal communication, relationships, and environmental transaction. Students will conduct case studies and analysis. *Prerequisite: Psychology 105*. Fall semester. Prof. Teske.

237 Psychology of Women
3 credits. A psychological approach to understanding both the behavior of women and the female experience. Topics include development across the lifespan, language and reasoning, victimization, physical well-being, mental health, and stereotype-based conflicts. *This course also fulfills the 200 level Social World requirement of the 1990 Core program*. Fall semester. Prof. Rider. Not offered 2004-2005.

241 Sensory Psychology
4 credits. A survey of the visual, auditory, cutaneous, gustatory, and olfactory senses including the major theories and methods in sensory psychology. Includes laboratory work and demonstrations. *Prerequisite: Psychology 105*. Spring semester. Prof. Lemley.

317 Learning and Motivation
4 credits. A study of major principles and theories of learning and motivation and the empirical research, animal and human, on which they are based, and a critical evaluation of the theories. Includes out-of-class experimental analysis of behavior. *Prerequisite: Psychology 105 and junior status or permission of the instructor*. Fall semester. Not offered 2004-2005.

321 Theories of Personality
4 credits. A critical examination of major theories and perspectives on human personality. Addresses biological bases, historical and cultural issues, empirical evaluation, and integrated understanding. Emphasizes the pursuit of personal development, human freedom, and clinical application. Theories include evolutionary, psychoanalytic, social-cognition, dispositional, motivational, ego-development, and narrative. Includes studio work. *Prerequisite: Psychology 105 and junior status or permission of the instructor*. Spring semester. Prof. Teske.

325 Applied Developmental Psychology
4 credits. Examination of the applications of developmental theory and research. Topics covered include: influences of day care, poverty, child abuse, divorce, and mass media on children's development; applications of cognitive research to education; assessment and intervention of developmental psychopathology; and aging and cognitive skills. Students participate in field work and analysis. *Prerequisite: Psychology 225*. Spring semester.

333 Psychological Assessment
4 credits. An introduction to theoretical, practical, and ethical issues in assessment, focusing on application and decision making. Widely-used tests are also discussed. *Prerequisite: Psychology 105*. Spring semester.

341 Human Cognition
4 credits. A study of the theoretical models, methods, and empirical findings involving mental abilities including perceiving, reasoning, memory, problem solving, creativity, language and attention. Includes laboratory research. *Prerequisite: Psychology 105 and junior status or permission of the instructor.* Prof. Lemley, Price.

371-379 Special Topics
Variable credit. Topics not otherwise covered in the curriculum. Offered when student interest and faculty availability justify. *Prerequisite: permission of instructor.*

401 Counseling Psychology
3 credits. An introduction to counseling and therapeutic skills. Substantial class time is devoted to role-playing various counselor/counselee situations and an examination of the assumptions which students bring to the role of counselor. *Prerequisites: Psychology 105 and permission of the instructor.* Prof. Dennis.

402 History and Systems of Psychology
4 credits. A study of major historical systems in psychology, including structuralism, functionalism, behaviorism, gestalt psychology, and psychoanalysis. Capstone course for psychology majors. *Prerequisite: Psychology 105 and senior status.* Fall semester. Prof. Dennis.

413 Research in Perception
4 credits. A study of the theories and empirical findings in the area of perceptual functioning with emphasis on visual processing. Students will conduct an original research project. *Prerequisites: Psychology 213, 218, and 241, or 341, and permission of the instructor.* Fall semester. Prof. Lemley.

414 Research in Memory and Thinking
4 credits. The theories, empirical findings, and applications of research in memory. Students conduct an original research project. *Prerequisites: Psychology 213, 218, and 341 and permission of the instructor.* Spring semester. Prof. Price.

425 Research in Developmental Psychology
4 credits. An advanced study of major developmental theories and critical reviews of relevant empirical evidence. Students conduct research projects related to a common theme in developmental psychology. *Prerequisites: Psychology 213, 218, and 225 and permission of the instructor.* Spring semester 2005, Fall semester 2006. Prof. Rider.

435 Research in Social Psychology
4 credits. A critical examination of selected areas of social psychological research with attention to crucial theoretical and methodological issues and questions of social, legal, ethical, and historical relevance. Students complete an original research project. *Prerequisites: Psychology 213, 218, and 235 or 321 and permission of the instructor.* Fall semester 2004, Spring semester 2006. Prof. Ruscio.

475 Field Study
4 credits. Supervised training and experience in a professional setting related to psychology, generally for two afternoons a week, plus meetings with the instructor. *Placement depends on student interest and goals and availability of professional setting. Prerequisites: Psychology 105 (221 and 401 for students interested in a mental health setting) and permission of instructor.* Graded Pass/No Pass. Prof. Dennis.

480-489 Independent Study
Variable credit. This course offers the mature student the independence to pursue educational experiences not otherwise available in the curriculum. *Prerequisite: Approval of the Chair and the Independent Study Committee.*

491-492 Research Practicum
Variable credit. Research in psychology under the close supervision of a faculty member. Topics for research are chosen in an area of interest to both persons. Offered by individual faculty-student arrangement. *Prerequisites: Psychology 213, 218 and permission of instructor.*

Department of Religious Studies

Professors: Bucher, Eller (*Chair*), Kraybill, Parkyn
Assistant Professors: J. Long, M. Long
Instructor: Sadd

Bachelor of Arts

Religious Studies courses offer all students the opportunity to explore the religious and spiritual dimensions of life, culture, and society. The Department prepares its majors and minors to continue theological study and ministry training at the graduate level; to pursue graduate study in religion; and to make meaningful contributions in the vocations to which they feel called. In keeping with the heritage of the Church of the Brethren and the mission of the College, departmental courses explore ways in which religious beliefs, practices, and traditions promote peace within the human community; commend the use of nonviolent methods of transforming conflict; establish justice locally and globally; proclaim the essential worth of all human beings; and encourage respect for diversity.

Religious Studies is a highly diversified discipline that draws on a variety of scholarly methods and involves the empathetic study of myriad religious traditions. Our department reflects the historical, theological, scriptural, ethical, and comparative aspects of this field. The faculty is, therefore, able to offer a balanced and thorough course of study for students in the areas of Asian religions, biblical studies, ethics and society, history of Christianity, and ministry studies.

Following the Church of the Brethren heritage of Elizabethtown College, the Department emphasizes the study of nonviolence and fosters an understanding of the historical Brethren commitments to peace, justice, and service. Thus, the Department sponsors interdisciplinary minors in Peace and Conflict Studies and Anabaptist and Pietist Studies.

Religious Studies Major. The religious studies major consists of 12 courses. Students are encouraged to design a program of study that has both breadth and depth. To gain depth in one area of religious studies, majors should choose one of the following areas of concentration: **Biblical Studies**, **Ethics and Society**, **History of Christianity**, **Asian Religions**, **Ministry Studies**.

Majors who concentrate in Biblical Studies, Ethics and Society, History of Christianity, or Asian Religions should complete within their concentration the following courses: at least one 200-level course; at least two 300-level or 400-level courses; and Religion 490, a research project or thesis in their concentration. To gain breadth, majors will normally take at least two courses in areas outside their concentration.

Biblical Studies concentration: Religion 213, 214, 215, 216, 225, 226, 261, 323, 325.

Ethics and Society concentration: Religion 165, 245, 261, 264, 269, 344, 345

History of Christianity concentration: Religion 281, 283, 285, 289, 385

Asian Religions concentration: Religion 217, 291, 292, 395

The Ministry Studies concentration: Students who concentrate in Ministry Studies should take Religion 252; 355; either 470 (Internship) or 490 (Research Project); and they must choose one course from each of the following areas: Bible (225 or 226); Ethics and Society (165 or 245); History of Christianity (281, 283, or 285); and World Religions (Religion 105, 291 or 292).

Language Requirement All Religious Studies majors should take two college-level courses in a second language, either an ancient language (e.g., Greek, Hebrew, Latin, or Sanskrit) or a modern language (e.g., French, German, Japanese, or Spanish). Religious Studies majors are also encouraged to incorporate study abroad into their academic program, as a junior-year experience or as a summer experience.

Double Majors Students who have chosen religious studies as a second major may petition the Department for a two-course reduction in the major requirements.

Electives. In addition to courses from within the Department to complete their major in religious studies, students may choose to take a maximum of two courses from these offerings in other departments: History 311, 312, 315; Philosophy 201, 320; Political Science 328; Sociology 317, 364.

The **Religious Studies minor** consists of six courses from the religious studies department (i.e., courses with a Religion prefix). Religious Studies minors are encouraged to see a member of the Department for advising.

Minors in Peace and Conflict Studies and Anabaptist and Pietist Studies are also available. Consult the list of Interdisciplinary Programs on pages 210 and 215 for details.

The Department of Religious Studies participates in the College Honors in the Discipline program. For guidelines and details, students should consult the Department chair.

105 HUM Exploring Religion and Religions
4 credits. **(Humanities Core Course)** A survey introducing historical origins, practices, and beliefs of many of the world's religious traditions and the methods of inquiry in the various disciplines in the field of religious studies. Theories of the nature and origin of religion, and categories such as the sacred, myth, scripture, ritual, ethics, religious change, and questions of religious truth are explored. Significant attention to the contemporary environment of religion is granted. *This course also fulfills the 100 level Values and Choice requirement of the 1990 Core program.* Profs. Landes, Sadd.

165 HUM Peace, War, and Nonviolence
4 credits. **(Humanities Core Course)** A survey introducing key concepts and issues in the study of peace and war. Substantive meanings of peace and war, the reasons for war, and the attempts to build both negative and positive peace are explored. The course grants sustained attention to the pacifist tradition and historical tactics of nonviolent resistance. *This course also fulfills the 100 level Values and Choice requirement of the 1990 Core program.* Spring semesters. Prof. M. G. Long.

213 PL Biblical Hebrew I
4 credits. **(Power of Language Core Course)** A beginning study of the alphabet, grammar, and vocabulary of Biblical Hebrew, with the final goal of reading the Tanakh in its original language. Offered as needed. Prof. Bucher.

214 Biblical Hebrew II
4 credits. Continues the study of Biblical Hebrew grammar and vocabulary. *Prerequisites: Religion 213, or permission of the instructor.* Prof. Bucher.

215 Koiné Greek I
4 credits. A beginning study of Koiné Greek grammar and vocabulary with a goal of reading the Septuagint and the New Testament in Greek. Translation exercises are from the Septuagint and the New Testament. Offered as needed. Prof. Bucher.

216 Koiné Greek II
4 credits. Continued study of Koiné Greek grammar and vocabulary. Translation exercises are taken from the Septuagint and the New Testament. Offered as needed. *Prerequisites: Religion 215, or permission of the instructor.* Prof. Bucher.

217 PL Introductory Sanskrit I
4 credits. **(Power of Language Core Course)** An introduction to Sanskrit designed to develop basic reading competence as well as a general knowledge of grammatical principles, an elementary vocabulary, and a sense of the relationship of the structure of the Sanskrit language to classical Indian culture and philosophy. *This course also fulfills the 200 level Foreign Cultures and International Studies requirement of the 1990 Core program.* Offered as needed. Prof. J. D. Long.

225 NCH The Hebrew Bible and the Ancient Near East - WRI
4 credits. **(Non-Western Cultural Heritage Core Course)** An introduction to the Hebrew Bible with emphasis on its ancient Near Eastern context. Readings include myths, stories, laws, hymns, poetry, and wisdom texts from Egypt, Babylonia, and Ugarit, in addition to selected readings from the Bible (Tanakh or Old Testament). *This course also fulfills the 200 level Cultural Heritage requirement of the 1990 Core program. Students who have taken Religion 211 may not take this course.* A Writing and Research Intensive Course. Prof. Bucher.

226 The New Testament
4 credits. An introduction to the literature of the New Testament, with emphasis on the first-century Mediterranean context. Spring semester. *Students who have taken Religion 212 may not take this course.* Prof. Bucher.

245 HUM Christian Social Ethics
4 credits. **(Humanities Core Course)** This survey course introduces Christian ethical reflections on social institutions (for example, the state and market), social actions (for example, peacemaking and distributing capital), and the moral character of social institutions. A fundamental part of this course is an exploration of the sources, forms, norms, and contexts of Christian social ethics. *This course also fulfills the 200 level Values and Choice requirement of the 1990 Core program. Students who have taken Religion 215 may not take this course.* Fall semester. Prof. M. G. Long.

252 Vocation and Church in the 21st Century
4 credits. This course invites students to reflect theologically on vocation and the church within the context of the changing landscape of the postmodern world. Emphasis will be placed on the trends and issues that challenge the church in the 21st century. While the course and its readings will focus primarily on the Christian church in the United States, the course will also discuss trends, issues, and methods that may apply to synagogue, temple, or mosque. Alternate years. Prof. Sadd.

261 Peacemaking and Social Justice in the Bible
4 credits. An examination of biblical texts relating to peacemaking and social justice and the ways in which those texts have been interpreted by Christian ethicists and theologians. *Students who have taken Religion 240 may not take this course.* Every four years. Prof. Bucher.

264 Religion and Violence
4 credits. Through an exploration of a variety of religious traditions and historical case studies, this course engages in a cross-cultural, multidisciplinary examination of the role of religion in promoting both violence and nonviolence. Topics include religiously motivated terrorism, religious responses to globalization and secularism, religion and the politics of identity, and religious views on the ethical treatment of animals and the environment. *Students who have taken Religion 351 Religion and Violence through a pre-2003-2004 catalog may not take this course.* Alternate years. Prof. J. D. Long.

269 Nonviolent Peacemaking
4 credits. Exploration of a new social ethic emerging in the field of Christian peace studies—an ethic of just peacemaking. In addition to studying the history, sources, and underlying theory of this emerging social ethic, the course will grant sustained attention to concrete peacemaking initiatives, especially by detailing and evaluating the ethic's ten practices for abolishing war. *Prerequisite: Religion 165.* Fall semester, alternate years. Prof. M. G. Long.

281 HUM Religion in America - WRI
4 credits. **(Humanities Core Course)** A survey of the major religious traditions, primarily Christian, in the United States. The beliefs, history, and role of various religious bodies within the larger framework of American social and cultural life are explored. The role and development of immigrant religious groups, such as the English Puritans, German sectarians, ethnic Catholic groups, and the birth of uniquely American movements such as the Mormons and Disciples of Christ are examined. A special focus is how religious traditions have shaped public morality and government policy. *This course also fulfills the 200 level Values and Choice requirement of the 1990 Core program. Students who have taken Religion 230 may not take this course.* A Writing and Research Intensive Course. Prof. Eller.

283 Citizenship and Conscience: Peace Church Dilemmas
4 credits. Various ethical dilemmas surrounding citizenship, conscience, military conscription/service, capital punishment, and abortion are examined. Peacemaking tradition represented by the "historic peace churches" (Brethren, Mennonites, and Friends/Quakers) are highlighted alongside other religious traditions working for peace and justice. Special attention is given to the role of dissent in a democratic society, points of tension between faith-driven groups and government policy, and relevance of a peace witness for a healthy society. *Students who have taken Religion 250 may not take this course.* Alternate years. Profs. Eller, Kraybill.

285 Amish, Brethren, and Mennonites in the US since 1860
4 credits. An interdisciplinary study of the Amish, Brethren, and Mennonite experience (beliefs, history, practices) in the context of modern American culture with primary focus upon understanding how these religious communities responded to major developments in American society since 1850 - the industrial revolution, the modern state, individuation, modern warfare, conscription, the rise of technology, compulsory public education, theological liberalism, and religious pluralism. How changes in the larger society have encouraged assimilation, fragmentation, and in some cases reactionary (old order) movements within Anabaptist and Pietist groups is explored. Spring semesters. Profs. Eller, Kraybill.

H289 WCH Honors Communal and Utopian Societies - WRI
4 credits. **(Western Cultural Heritage Core Course - Honors)** An examination of various types of communal societies, frequently known as utopian or intentional communities, that have sought to institute an ideal social order, a "heaven on earth." Historic and contemporary religious expressions of American communal development are emphasized. Case studies include the Ephrata Society, Brook Farm, Oneida, New Harmony, the Amana Colonies, the Hutterites, the Shakers, Reba Place Church, and the Catholic Worker Movement, among others. *This course also fulfills the 200 level Social World Religion requirement of the 1990 Core program.* Fall semesters. A Writing and Research Intensive Course. Prof. Eller.

291 NCH Religions of South Asia - WRI
4 credits. **(Non-Western Cultural Heritage Core Course)** An introduction to the major religious traditions of Southern Asia/the Indian subcontinent. An exploration of the basic history, doctrines, and practices of Hinduism, Jainism, Sikhism, And Islam. The Zoroastrian (Parsee) tradition and the histories, beliefs, and practices of the small Jewish and Christian communities of the region is covered. *This course also fulfills the 200 level Foreign Cultures and International Studies requirement of the 1990 Core program. Students who have taken Religion 221 may not take this course.* A Writing and Research Intensive Course. Fall semester. Prof. J. D. Long.

292 NCH Religions of East Asia - WRI
4 credits. **(Non-Western Cultural Heritage Core Course)** An introduction to the major religious traditions of East and Southeast Asia. An exploration of the basic history, doctrines and practices of Buddhism, Daoism, Confucianism and Shinto. The main focus is upon Buddhism, in all of its various forms (Theravada, Mahayana, and Vajrayana). *This course also fulfills the 200 level Foreign Cultures and International Studies requirement of the 1990 Core program. Students who have taken Religion 222 may not take this course.* A Writing and Research Intensive Course. Spring semester. Prof. J. D. Long.

323 Women, Gender, and the Hebrew Bible
4 credits. An upper-level seminar in biblical studies offering advanced study of selected Hebrew Bible texts that reflect attitudes about women, sexuality, and gen-

der. Readings include selections from both the Hebrew Bible and related secondary literature. Emphasis is on the study of women and gender in the Hebrew Bible, and students will read primarily feminist scholarship. Some attention is given to gender from the perspective of the more recent fields of gender studies and men's studies. *Prerequisite: Religion 211 or 225*. Alternate years. Prof. Bucher.

325 Seminar in Biblical Studies
4 credits. Advanced work in the field of biblical studies. Changing topics. Possible topics include Wisdom Literature; Prophecy and Apocalyptic; Book of Genesis; Jesus and the Gospels; The Apostle Paul. *Prerequisites: Religion 225 (or 211) for seminars in Hebrew Bible; Religion 226 (or 212) for seminars in New Testament.* Every four years. Prof. Bucher.

344 Social Ethics of Martin Luther King
4 credits. An introduction to the social ethics of Martin Luther King, Jr., the course explores the sources, substantive content, and evolution of King's reflections on social institutions (the state and market), social actions (peacemaking and redistributing resources), social roles (prophet and politician), and moral character. King's social ethics in relationship to his theological beliefs and personal practices are examined. *Prerequisite: Religion 245*. Every four years. Prof. M. G. Long.

345 Seminar in Christian Social Ethics
4 credits. Upper-level seminar, designed for students with a concentrated interest in theology and ethics, offers an advanced study of major issues and figures in Christian social ethics. Sections include Christianity and politics, Christian liberation ethics, and Christian attitudes towards war and peace. The seminar, led in part by students, is devoted to careful exegeses of, and writing about, the primary texts of major Christian ethicists. *Prerequisite: Religion 245*. Every three years. Prof. M. G. Long.

352 Psychology of Religion
4 credits. An examination of the classic issues in the psychology of religion. Readings in William James, Peter Berger, Carl Jung, and Sigmund Freud. Alternate years. *Students who have taken Religion 266 may not take this course.*

355 Seminar in Ministry Studies
4 credits. An in-depth examination of specialized topics and issues in the area of ministry studies. Theoretical models, contemporary issues, and practical applications in specific ministry contexts are emphasized. Topics vary, so the course may be repeated under new topics. Sections include Servant Leadership, Spiritual Formation, Ministry with Children and Youth, and Women in Ministry. *Prerequisites: Religion 252, or permission of the instructor.* Prof. Sadd.

370-379 Special Topics in Research
4 credits. Topics not included in the regular curriculum. Offered as needed.

385 Seminar in History of Christianity
4 credits. Offers advanced work in the History of Christianity. Topics include "Brethren Life and Thought." Offered every four years. Profs. Eller, Kraybill.

395 Seminar in Asian Religions
4 credits. In-depth examination of Asian religions including advanced and specialized studies in religious and philosophical traditions of Asia. Sections cover one or more Asian religious traditions or a specific topic analyzed across several traditions, including: The Bhagavad-Gita, Classical Indian Philosophy, Modern Indian Philosophy, Philosophy East and West, Death and Immortality, and Krishna-Buddha-Christ. *Prerequisite: Religion 291 or 292.* Alternate years. Prof. J. D. Long.

471 Internship
3-12 credits. Students works in a church, nonprofit institution, or research organization with religious-based interests. Although primarily unpaid experiences; some organizations may offer a stipend or form of payment One full work day per week is required for every 3 credits granted. Course requirements are decreased or increased as deemed appropriate by the Internship Advisor. Prof. Sadd.

480-9 Independent Study
4 credits. Individual study in areas of interst for students capable of conducting independent research. *Prerequisite: Approval of the Department chair and the Independent Study Committee.*

485 Directed Research Project in Anabaptism and Pietism
4 credits. The capstone course for completing the Anabaptist and Pietist Studies minor. Student's interests and previous coursework are integrated to produce a major research paper or equivalent project, based in part on primary source materials. *Prerequisite: permission of the instructor.* Offered as needed. Profs. Eller, Kraybill.

490 Senior Research
4 credits. A specialized independent study in the student's senior year. Required of students concentrating in Asian Religions, Biblical Studies, Ethics and Society, and History of Christianity, optional for Ministry Studies students. *For Honors Students majoring in Religious Studies this is their Honors Thesis. Students invited to undertake Honors in the Discipline research take this course.*

Department of Social Work

Associate Professors: Bartoli (*Director, Urban Service-Learning*), Bergel (*Coordinator, Center for Civic Engagement*), Bowersox (*Director, Field Instruction*), McFarland (*Chair*)
Assistant Professor: Mapp
Instructors: Gadsden, Teter

Bachelor of Arts

Social Work is a multi-faceted profession concerned with change on an individual, community, national, and international level. Within the framework of a liberal arts tradition, Elizabethtown's social work program prepares the student for entry into professional social work practice or graduate school. The program is based on an understanding of generalist practice, which allows the graduate to choose from a wide range of social service careers.

The major in social work recognizes both the rural and urban environments of the Elizabethtown College community and seeks to prepare students for professional social work practice in either setting. The program is accredited by the Council on Social Education.

The program provides an extensive opportunity for field experience beginning in the first year. The major culminates with 600 hours of field instruction during the student's senior year. Field experiences are arranged to meet the student's individual interest. Field experiences include but are not limited to such areas as child welfare, corrections, mental health, rehabilitation, health care, schools, and aging.

The **Social Work major** requires prospective students to apply for admission to the program. This application requires the following:

1. A formal interview with a social work faculty member where professional interests and abilities are explored.
2. Three reference rating-forms completed by persons who know the applicant (two personal, one professional).
3. A short essay describing the applicant's interest in the field of social work.
4. Formal admittance to Elizabethtown College.

Admittance into the program does not guarantee that the student will graduate with a degree in social work. The advisor, in conjunction with the social work faculty, reserves the right to dismiss a student from the major on the basis of unprofessional behavior and/or academic performance. The standards for professional conduct as expressed in the NASW Code of Ethics serves as the Department's standards to determine dismissal from the program. The student has the right to appeal the decision in the same manner as dismissal for academically related reasons. These policies are articulated in both the Department handbook and the website.

In order to remain in the Department, the student must obtain a minimum grade point average of 2.0 in all social work courses required by the major.

The Social Work major requires the following courses: Biology 101 or 111; Sociology 101; Psychology 105; Mathematics 251; Social Work 160, 233, 330, 367, 368, 369, 401, 470, 471, and 498.

A **Human Services minor** is offered by the Department of Social Work. For details of the requirements, see the Interdisciplinary Programs section of the Academic Program. For more information, contact Professor Vivian Bergel.

160 SSC Social Problems and the Response of Social Welfare Institutions
4 credits. **(Social Science Core Course)** An orientation to the sociological approach of examining social problems and the development of social welfare policies and programs to reduce their severity and extent. An exploration of the components of a social problem, a history of the problem, how social problems are studied and the social welfare movements and services which strive to resolve these problems is included. Developing an understanding of both sociological and social work theories and the way in which these theories form the foundation for research, service, and advocacy is emphasized. *Twenty (20) hours of service-learning and original social research are required. This course also fulfills the 100 level Social World requirement of the 1990 Core program. Students who have taken Social Work 151 may not take this course.* Profs. Bowersox, McFarland, Bergel, Mapp, and Teter.

233 Human Behavior in the Social Environment
4 credits. A study of the interrelationships of social systems, with particular emphasis upon the impact of the environment on human development through the life span. Special consideration of the influence of ethnicity, racism, sexism, and ageism upon behavior and the implications for human service delivery. Fifteen hours of service learning required. *This course also fulfills the 200-level Social World requirement of the 1990 Core program.* Profs. Bowersox, Mapp, McFarland, and Gadsden.

280 Interpersonal Counseling in a Multicultural Context
4 credits. Theories explaining human behavior and social interaction in the context of social systems and social welfare are discussed, analyzed and critically reviewed. The systems perspective and the social psychological theory of symbolic interactionism are explored to understand the importance of an individual's environment and social systems in shaping his/her behavior. Students learn to appreciate their own cultural heritage and how it has shaped them; and about the cultural heritage of other diverse groups, about the need for equality, and social and economic justice for all oppressed people, and effective interpersonal and multicultural counseling. *Twenty hours of service learning in a diverse setting is required. This course also fulfills the 200 level Social World requirement of the 1990 Core program.* Prof. Bergel.

330 Methods of Social Work Research (Political Science 230)
4 credits. A focus upon the basic elements of the scientific method providing an overview of research designs commonly used in social sciences, including techniques for gathering, analyzing and presenting data. *Prerequisite or co-requisite: Mathematics 251. Prerequisites: Social Work 160, 233 or permission of the instructor.* Fall semester. Prof. Mapp

332 Seminar in Urban Issues (Education 332)
4 credits. An exploration of some of the complex and interconnected education, health and welfare issues affecting low-income urban families, schools and communities. Service learning and action research in urban schools, agencies, and community programs provide experiential learning vital to a deeper understanding of educational, political, racial, and economic dynamics that shape and constrain the lives of families in U.S. cities. *Prerequisite: Previous experience in urban communities, schools or agencies.* Prof. Bartoli.

339 Human Sexuality
4 credits. This course focuses on the socio-historical aspects of sexuality, survey and experimental research, and attitudes towards sexuality. Prof. McFarland.

344 Aging: Social Response and Implications
4 credits. An examination of the aging process in our society. The emphasis is on the interface of the individual and the environment and the services, needs and institutions related to the elderly. Field trips to community agencies and 10 service-learning hours required. Prof. McFarland.

355 Women in Society
4 credits. A systemic view of women in our society is provided, including emphasis on the socialization of women, women's roles historically and in major social institutions, sexism and the feminist movement. Feminist social work practice and its connection to feminist ideology theory is explored. Profs. Bergel, Mapp.

357 Child Welfare
4 credits. A study of ethnic, cultural and economic problems as they relate to children, the services available to combat those problems, and the legal and legislative aspects of child welfare. Prof. Gadsden.

366 Addictions and Society
4 credits. An examination of individual, family, and social implications of addiction in society and an exploration of social policies related to addiction.

367 Generalist Social Work Practice I - Individuals
4 credits. A focus on problem solving in generalist practice at the micro level (i.e., individuals) with diverse populations. A variety of interventions, assessment tech-

niques, and theories are studied in preparation for a required 40 hour supervised field experience. *Prerequisites: Social Work 160, 223, or permission of the instructor. Social Work majors only.* Fall semester. Profs. Bergel and McFarland.

368 Generalist Practice II – Families and Small Groups
4 credits. A study of the knowledge, values, and skills which comprise the generalist base of social work practice. It is designed to assist students in developing basic entry level social work competencies to work with groups and families from a systems perspective. *Prerequisites: Social Work 160, 223, 367, or permission of the instructor. Social Work majors only.* Prof. Teter.

369 Generalist Social Work Practice III – Communities and Organizations
4 credits. Theory and skills development for macro generalist social work practice are presented. Promoting the social welfare of communities and organizations by enhancing social and economic justice is stressed and practiced during a 40 hour supervised field experience. *Prerequisites: Social Work 160, 233, 330, 367, 368, or permission of the instructor. Social Work majors only.* Spring semester. Profs. Bergel, Mapp.

371 – 379 Special Topics in Social Work
4 credits. Reading and discussion of topical areas of social work including, but not limited to, evaluation research, family treatment, group treatment, services to minority groups, and industrial social work.

400 Senior Project
1-4 credits. Students who have been invited to and accepted to participate in the Honors in the Discipline Program may register for this course in the semester in which the research or creative project is completed. *Completion of this course does not assure recognition for Honors in the Discipline. Prerequisite: invitation to Honors in the Discipline program.* Prof. Mapp.

401 Social Policy
4 credits. Students build their knowledge of social welfare and social work's historical and philosophical foundation begun in SW 160. They learn why and how social policy is formulated and implemented into micro, mezzo, and macro levels of society; how policy impacts upon direct practice; and how the quality of life is affected by it across frameworks for policy analysis and methods for influencing its development. *Prerequisites: Social Work 160, 233, 330, 367, or permission of the instructor. Social Work majors only.* Spring semester. Prof. Bowersox.

470 Field Instruction I
6 credits. Supervised field instruction for at least 200 hours in an agency. Student begins to assume responsibility with client systems in such ways as monitoring tasks, providing support, conducting group activities, and assisting the social worker with other professional responsibilities. *Prerequisites: Social Work 160, 233,*

330, 367, 368, 369, 401, or permission of the instructor. Social Work majors only. Graded Pass/No Pass. Fall semester. Profs. Bowersox, Bergel.

471 Field Instruction II
12 credits. Supervised field instruction for at least 400 hours plus a weekly on-campus seminar. Students proceed from an "assistant" position to one of complete client responsibility under direct supervision. Roles students assume may include advocate, enabler, social broker, and program planner. *Prerequisites: Social Work 160, 233, 330, 367, 368, 369, 401, 470, or permission of the instructor. Co-requisite: Social Work 498. Social Work majors only.* Graded Pass/No Pass. Spring semester. Profs. Bowersox, Bergel.

481 – 489 Independent Study in Social Work
Variable credit. Opportunity for advanced students independently to pursue study otherwise not available in the curriculum. *Prerequisite: permission of the instructor and approval of the Independent Study Committee.*

498 Senior Seminar
4 credits. Final course integrating the theory from preceding courses with the professional experience of field instruction. A major project is required. *Prerequisites: Social Work 160, 233, 330, 367, 368, 369, 401, 470; co-requisite Social Work 471, or permission of the instructor. Social Work majors only.* Spring semester. Prof. McFarland.

Department of Sociology and Anthropology

Professors: Kraybill, T.Long, McAllister
Associate Professors: Kanagy, Wheelersburg (*Chair*)
Assistant Professors: Kozimor-King, Newell, Field

Bachelor of Arts

The Department's program provides for the study of interpersonal and intergroup relationships and the growth, changes, structures and processes of human society. The courses, reflecting the philosophical tradition of Elizabethtown College, are designed to prepare students for service in a complex society. The Department offers two majors.

Bachelor of Arts in Sociology-Anthropology

The major emphasizes conceptual and applied approaches so that the student is prepared for a variety of career opportunities. Students majoring in sociology-anthropology move directly into careers in business, government, criminal justice, survey and marketing research, religious settings, and in other fields where knowledge of society and human behavior is important. Some go on to graduate school seeking higher degrees in sociology, anthropology, public health, hospital administration, social planning, social work, law and business administration.

The Department also participates in the Citizenship Education and Social Sciences Certification Program that prepares students to be secondary teachers. Refer to the Interdisciplinary section for a detailed description.

The Department also offers minors in sociology and in anthropology.

The **Sociology-Anthropology major** requires 44 credits. Students complete 28 credits from the common track and 12 credits from one of three options. The common track requires Sociology 101, 330, 331, 402; Anthropology 111, 201; one of the following: Anthropology 306, 307, 308, Sociology 364 or 367; and Mathematics 251.

Option A, **Sociology-Anthropology**, includes a sociology elective, an anthropology elective, and an internship.

Option B, **Criminal Justice**, requires Sociology 216 and 218; Sociology 342 or 352, or Political Science 311; and an internship.

Option C, **Archaeology**, consists of Anthropology 361, 362 (field school), and 363.

The **Anthropology minor** requires 16 credits of course work including: Anthropology 111, 201, and two anthropology electives.

The **Sociology minor** requires 16 credits of course work including Sociology 101, 330, and two sociology electives.

The Department of Sociology-Anthropology participates in the College Honors in the Discipline. For guidelines and details regarding requirements, the student should consult the Department chair.

Bachelor of Arts in Criminal Justice

With a focus on social justice, the major emphasizes the prevention aspects of the criminal justice system. Students learn basic social science theories on the sources of conflict in America, such as race and ethnic relations, and deviant behavior. Majors also acquire the analytical tools and criminal justice knowledge necessary to collect and interpret crime data. As liberal arts majors, students broaden their learning outside of sociology in such fields as ethics, political science, psychology and statistics. In addition, criminal justice majors elect subjects relevant to modern criminology such as management, foreign language, human genetics, law, professional writing or social work.

The **Criminal Justice major** consists of 40 required credits and 8 credits of approved electives. Required courses are Sociology 101, 215 or 217, 302, 330, 342 or 352, 353, and 471; Mathematics 251; Philosophy 115; and Psychology 105. Students must choose two courses from the following groups, and only one course from any one group can be used to meet the elective requirement: Anthropology 363 or Biology 205 or 211; English 283 or 284; Political Science 311 or 361; Psychology 221 or 235; Spanish 211 or 212; and Social Work 357 or 366.

Sociology

101 SSC Discovering Society - WRI
4 credits (**Social Science Core Course)** An introduction to the sociological perspective to achieve an understanding of society and its impact on the individual through exploring social reality, processes and explanation. *This course also fulfills the 100 level Social World requirement of the 1990 Core program.* This is a Writing and Research Intensive course.

204 Population and Global Issues
4 credits Critical analysis of the relationship between demographic processes (including fertility, mortality, and migration) and major social problems (such as land degradation, food and water shortages, energy development and sustainable growth). *This course also fulfills the 200 level Social World Sociology requirement of the 1990 Core program.*

216 Introduction to the American Criminal Justice System
4 credits. An overview of the criminal justice system in the United States that examines law, policing, lawyers, judges, and court processes.

218 Criminology
4 credits. Sociological approaches to the study of crime with emphasis on current sociological theory and research, special consideration of the judicial system and penology. *Prerequisite: Sociology 216.*

220 Race and Ethnic Relations
4 credits. Study of racial and cultural minorities in the U.S. and their relationships to dominant groups, including discrimination, prejudice, racial myths, and methods of reducing intergroup tensions.

301 Social Issues
4 credits. A survey of major social problems including alienation, addiction, crime and poverty. Implications for public policy are stressed.

305 Marriage and the Family
4 credits. A study of cross-cultural marriage and family patterns and the comparison of these frameworks to premarital, marital, postmarital and nonmarital aspects of family life in our society.

317 Sociology of Religion
4 credits. An analysis of the role and function of religion and religious institutions in society. A study of religion as a social and cultural system. *Students who have taken Religion 317 may not take this course.*

330 Methods of Social Research
4 credits. Basic procedures of sociological research design, sampling, measurement and data analysis. *Prerequisite: Sociology 101.* Fall Semester.

331 Social Statistics
4 credits. The study of statistical techniques of social research and analysis with emphasis on reasoning with data. *Prerequisites: Sociology 330, Mathematics 251.* Spring Semester.

342 Modern Corrections
4 credits. Overview of the origins, processes, organization and contemporary trends of corrections for juveniles and adults, including problems and alternatives to current correctional policies. *Prerequisite: Sociology 216.*

352 Juvenile Law and Justice
4 credits. An analysis of young offenders focusing on delinquency theory, juvenile law, and components and processes of the juvenile justice system. *Prerequisite: Sociology 216.*

353 Policing in America
4 credits. Examination of the structure of policing and police behavior in America, including the roles of police officers, decision making strategies, community relations, and problems with policing. *Prerequisite: Sociology 216.*

364 Amish Society
4 credits. An introduction to the history, culture and social organization of the Old Order Amish. Sociological theories and models utilized by social scientists to describe and analyze the Amish is presented. Special attention is paid to recent social changes.

367 Cultures and Societies of East Asia
4 credits. A sociological and cultural analysis of the background and contemporary customs of the peoples of East Asia with special attention paid to the problems of modernization and culture change.

371 - 379 Special Topics in Sociology
Variable credit. Occasional course offerings used to enhance the department curriculum.

402 Sociological Theory
4 credits. Examination and analysis of the development of the major classical and contemporary sociological theories with an emphasis on examining key concepts and how these have been applied in sociological research. *Prerequisite: Sociology 101.* Spring Semester.

471 Internship
Variable credit. Applied field instruction in a subfield of sociology which meets the student's needs. *Prerequisite: permission of the instructor.* Graded Pass/No Pass.

481 - 489 Independent Study in Sociology
Variable credit. Offers to advanced students the opportunity for independent study in areas not included in the regular offerings within the Department. *Prerequisite: Approval of the instructor and Independent Study Committee.*

Anthropology

111 NCH Understanding Human Cultures
4 credits. **(Non-Western Cultural Heritage Core Course)** An exploratory survey of the peoples and cultures of the world with special emphasis upon four interrelated cultural systems: economy, technology, social organization and ideology. *This course also fulfills the 100 level Foreign Cultures and International Studies requirement of the 1990 Core program.*

201 NPS Human Origins
4 credits. **(Natural and Physical Sciences Core Course)** Introductory study of humans as biological organisms, their place in nature, their genetics and differences, and their early cultural attainments. *This course also fulfills the 200 level Natural World Anthropology lecture-only requirement of the 1990 Core program. Prerequisite: one 100-level Natural and Physical Sciences core course with laboratory.*

306 Indians of North America
4 credits. Selective survey of Native American groups, past and present, with particular attention given to their historical background, modern life-style development, and contemporary social problems.

307 Ethnogeography of Africa
4 credits. Ethnographic and cultural analysis of the folk background and contemporary customs of the peoples of sub-Saharan Africa with special attention to the problems of culture change.

308 Ethnography of Latin America
4 credits. Ethnographic and cultural analysis of the folk background and contemporary customs of the peoples of Latin America with special attention to the problems of culture change. Prof. Newell.

361 Archaeology and Geography
4 credits. Methods of historical archaeology and cultural geography are covered, including field survey and documentary analysis, including diaries, letters, government records, and maps.

362 Archaeology Field School
Variable credit. Field instruction in excavating techniques, record keeping, mapping, artifact identification, processing, cataloging and classification. Sites vary but focus on historical sites in Pennsylvania.

363 Forensic Anthropology
4 credits. Examination of human skeletal anatomy from the perspective of the medico-legal process, involving techniques for identifying the sex, age, statue and race of an individual found in archaeological or homicide contexts. Prof. Newell.

371 - 379 Special Topics in Anthropology
Variable credit. Occasional course offerings used to enhance the department curriculum.

471 Internship
Variable credit. Applied field instruction in a subfield of anthropology chosen to meet the needs of the student. Graded Pass/No Pass. *Prerequisite: permission of the instructor.*

481 - 489 Independent Study in Anthropology
Variable credit. Offers to advanced students the opportunity for independent study in areas not included in the regular offerings within the Department. *Prerequisite: Approval of instructor and Independent Study Committee.*

Spanish

See Department of Modern Languages, page 137.

Theatre and Dance

See Department of Fine and Performing Arts, page 104.

Women and Gender Studies

For description of Minor see Interdisciplinary Programs, page 217.

Interdisciplinary Programs

Biology/Allied Health
Premedical Primary Care
Premedical/Health Care
Primary Care Pre-Admissions
Forestry/Environmental Management
Peace and Conflict Studies
Political Philosophy and Legal Studies
Pre-Law
Social Sciences Cert.
Citizenship Ed. Cert.
General Science Cert.
General Science Minor
Anabaptist and Pietist Studies
International Studies Minor
Human Services Minor
Women and Gender Studies

Interdisciplinary Programs

Biology/Allied Health

Bachelor of Science

The College offers cooperative programs with Thomas Jefferson University and Widener University. These programs lead to a Bachelor of Science degree from Elizabethtown College and the Doctor of Physical Therapy (DPT) from Thomas Jefferson University and Widener University.

In these programs, the student spends three years at Elizabethtown College fulfilling general education core, the pre-physical therapy curriculum, and the requirements of the Biology major. If accepted by the cooperating institution, the student spends three more years at any of the above institutions.

Students may apply for acceptance into Widener University's 3+3 DPT program during the fall semester of the junior year. Thomas Jefferson University's 3+3 DPT program accepts applications during the fall of the senior year of high school or during the first year at Elizabethtown College. Consult with Dr. Jonathon Coren before organizing your first year fall class schedule as this program has specific additional requirements.

After completing four years (three at Elizabethtown and one at the cooperative school), acquiring at least 125 credits, the student is awarded the Bachelor of Science degree in Biology from Elizabethtown College. After the student fulfills the remainder of the professional upper division program of clinical experience, the cooperative institution awards the Doctor of Physical Therapy (DPT) degree.

The Biology department requirements are: Biology 111, 112, 201, 202, 211 and one Biology elective. Chemistry 105, 113, 114; Physics 103, 104; Mathematics 251 and 110, or 117 or 121; and Psychology 105 and 221 or 225.

If the student elects to remain at Elizabethtown College for his or her senior year, the specific requirements in addition to those above are: Biology – one course from 313-313L or 317; one course from 321, 331, or 332; 412; and one additional biology elective.

Cooperative programs are offered with Thomas Jefferson University in other allied health areas, including cardiovascular technology, cyto-technology, cytogenetics technology, diagnostic imaging, laboratory sciences, nursing and occupational therapy.

Admission to Thomas Jefferson is by application and is based on an evaluation of a student's undergraduate record, letters of recommendation and interviews.

Students are not limited to the cooperative schools. Other allied health programs at other institutions of higher education may be used by the student to transfer credits back to Elizabethtown College. However, these programs need to be approved by the Biology Department and by the Director of Records prior to the transfer of credit. All Allied Health majors should consult closely with Dr. Jonathon Coren to insure that courses being taken fulfill other specific requirements of the institution to which the student plans to transfer.

Invasive Cardiovascular Technology

Bachelor of Science

For a description of program see page 37 in the Department of Biology Cooperative Programs.

Premedical Primary Care Program

Bachelor of Science

Elizabethtown College and the Pennsylvania State University College of Medicine offer a Program to selectively admit students seeking to pursue careers as primary care physicians. This program gives these students the option for automatic matriculation to the Pennsylvania State University College of Medicine upon completing the bachelor of science degree requirements.

Criteria for Acceptance

1. Students must rank in the top ten percent of their high school graduating class.

2. Students must achieve a minimum score of 1250 on the Scholastic Aptitude Test (SAT).

3. Students must have completed (a) three years of natural sciences including biology, chemistry, and physics and (b) mathematics through trigonometry (calculus is recommended).

4. Admission to the program is normally weighted in favor of students residing in rural and/or medically underserved areas of Pennsylvania.

5. Students' experiences in human service activities are considered in determining admission to the program.

6. Students seeking admission to the program should provide a statement as to why they wish to practice in a rural and/or medically underserved area and why they have an interest in primary care.

7. Admission to Elizabethtown College is determined by the director of admissions. Admission to the Primary Care Program is the responsibility of Elizabethtown College and the Pennsylvania State University College of Medicine.

Initial screening involves review of the criteria listed above by the Health Professions Advisory Committee of Elizabethtown, including a personal interview. Worthy candidates will be interviewed by representatives of the College of Medicine. Those deemed to have excellent potential for a career in primary care will be simultaneously accepted for the Premedical Primary Care Program at Elizabethtown and granted provisional acceptance to the College of Medicine. Final acceptance to the College of Medicine is contingent upon satisfactory fulfillment of the Specific Criteria by Year. (see following)

Criteria for Continued Participation in the Premedical Primary Care Program and Acceptance to Penn State University College of Medicine

1. While a student may major in any of a number of areas, the student must accumulate a minimum GPA of 3.5 in biology, chemistry, and physics courses and an overall GPA of at least 3.5 by the end of their junior year of college.

2. Students must complete two Family Practice Practicums sponsored by the Norlanco Medical Center in Elizabethtown and/or the Pennsylvania State University College of Medicine through (a) its Primary Care Scholars Program or (b) other primary care experiences coordinated by the Department of Family and Community Medicine. Participants must receive a positive evaluation by supervising physicians.

3. Students must continue to exhibit "primary care potential" through volunteer work in human services, course selection, and/or show motivation to work in rural areas or underserved communities as a primary care practitioner.

4. Yearly criteria for continued participation in the Premedical Primary Care Program.

5. If a student wishes to apply to additional medical schools, including the Pennsylvania State University College of Medicine, he/she must withdraw from the Premedical Primary Care Program and apply as a typical medical school applicant. The automatic matriculation to the Pennsylvania State University College of Medicine is sacrificed.

As a first-year, sophomore, and junior students must demonstrate continued interest in primary care by volunteering in human services, selecting humanistic courses, and participating in a variety of co-curricular activities that involve interaction with other people.

Specific Criteria by Year

Freshman Year:

1. Minimum GPA of 3.3.

Sophomore Year:

1. Minimum GPA of 3.4.

2. Internship in Primary Care sponsored by the Norlanco Medical Center in Elizabethtown or the Pennsylvania State University College of Medicine, with review and positive evaluation by the supervising physician(s).

3. Students will meet with the Assistant Dean for Admission (Spring semester) to review progress in the Program.

Junior Year:

1. Minimum GPA of 3.5.

2. A second internship in Primary Care sponsored by the Norlanco Medical Center or the Pennsylvania State University College of Medicine, with review and positive evaluation by the supervising physician(s).

3. Summative review and positive recommendation by the Health Professions Advisory Committee at Elizabethtown

4. Completion of the MCAT examination is required for admission to the Pennsylvania State University College of Medicine. Students granted a provisional acceptance to the College of Medicine through the Premedical Primary care Program must take the examination during April of the junior year of college. Although a specific score is not required, students are expected to perform at or above the mean score in each section when compared with the previous College of Medicine entering class. Students having one or more scores below this level will receive individualized counseling as to additional courses or other academic work that may be beneficial during the final year of college.

Senior Year:

1. An AMCAS application is completed.

2. Applicants are expected to maintain a high level of academic achievement.

3. Students will meet with the Assistant Dean for Admissions (fall semester) to review progress in the Program.

Premedical and Other Health Professions Programs

Bachelor of Science

James Dively (*Chair, Health Professions Advisory Committee*)
Members: Thomas Hagan, Frank Polanowski, Ray Reeder

Training for premedical and related disciplines such as dentistry, osteopathic medicine, veterinary science, optometry, and podiatric medicine may be accomplished through several routes. For ease of presentation, from this point on, the term premedical will refer to all health professions, schools, and/or students. The biology premedical student prepares for medical school through specific requirements that are the same as those for the biology major. (See page 34) A second route is the Bachelor of Science degree in biochemistry. (See page 60) Additional routes of potential interest include a major in most other departments, with sufficient concentration in basic sciences. Most medical schools however, find that those students who are very well prepared in biology and chemistry make the most attractive candidates, and these majors comprise the overwhelming majority of students accepted. During a student's first year at Elizabethtown College, he or she will work with a first-year advisor to plan a course of study containing appropriate science, mathematics, and Core courses. After completion of the first year, students will choose an academic major and follow the curriculum for that major in consul-

tation with their academic advisor and the Health Professions Advisory Committee.

A close working relationship exists between the premedical student and the faculty members who monitor and evaluate the student's academic growth. Four faculty members are members of Elizabethtown's Health Professions Advisory Committee.

The Committee serves the following functions: (1) to work jointly with premedical students and their major advisors to ensure that all prerequisites are met for entry into schools of medicine; (2) to advise students on registration and preparation for medical school admissions tests; (3) to assist students in the preparation and submission of applications to medical schools; (4) to draft a composite letter of evaluation and endorsement for worthy candidates and to forward this information to the appropriate medical school admissions committees; (5) to offer assistance in preparing for medical school interviews; (6) to solicit and collect literature that will aid students to plan financially for their medical training; and (7) to maintain statistics on medical school placement for advising and administrative purposes.

The premedical student should introduce himself or herself to the Health Professions Advisory Committee early in the first year and formally register with the Committee shortly after declaring a major. This will normally occur during the fall semester of the sophomore year. Forms for this registration are available from Dr. Dively. At this time, students will find it prudent and beneficial to discuss future course scheduling, long-term career plans, and related matters with Committee members.

Most students need to register for standard admissions tests, such as the MCAT, during the early part of spring semester, junior year. After obtaining registration materials, students will seek the Committee's advice regarding the most effective methods of completing their preparation for these extremely important examinations. The majority of the tests are administered during the spring, although the Committee may recommend that a student retake an examination during the summer testing period in an event of initial low scores.

During April of the junior year, the Committee will hold interviews with those students who will be seeking admission to health profession schools. The Committee will use information obtained from the interview to write the letter of evaluation. The Committee will also use information from the student's registration form and from letters of recommendation and endorsement that the student has solicited from three to five individuals, including at least three faculty members. After the Committee receives letters of recommendation and completes the personal interview with the student, the Committee will determine whether or not to prepare a written endorsement of the candidate. If such a letter is written, it will be forwarded, upon receipt of written notice from the student, to the appropriate medical school admissions committee. If the Committee does not choose to endorse the student, the student may solicit other individuals to write letters of evaluation, completing the application process himself or herself.

Each spring semester the Committee notifies students of the availability of application service materials for the various health professions. Junior premedical students are expected to complete these materials during the summer between the junior and senior academic year. Application service materials are normally submitted by the middle of August. After the student has completed and submitted applications to medical schools, the Committee will offer assistance in preparing students for medical school interviews. Generally, interviews at medical schools will be held during the fall semester of the senior year. Thus, it is imperative that premedical students notify the Committee of changes in status of their applications so that the Committee can plan for this important stage of the admission process.

The Committee believes that a strong positive recommendation and endorsement, combined with adequate scores on the requisite standard examinations and outstanding classroom performance, will put the candidate in an excellent position in the highly competitive admissions processes. The College's placement record indicates that this belief is well founded. Better than three-fourths of all Elizabethtown College applicants have been accepted (exceeding twice the national average), entering programs of excellent reputation, including those at Jefferson Medical College; Temple University School of Medicine and Dentistry; Philadelphia College of Osteopathic Medicine; Drexel University College of Medicine; the Pennsylvania State University College of Medicine (Hershey); University of Pittsburgh School of Medicine and Dentistry; University of Pennsylvania Schools of Medicine, Dentistry, and Veterinary Medicine; and Pennsylvania College of Optometry.

For further information, contact Dr. James Dively, chair, Health Professions Advisory Committee.

Primary Care Pre-Admissions Program

Bachelor of Science

Elizabethtown College is one of a select group of public and private colleges that is participating in a Primary Care Pre-Admissions Program (PPP) sponsored by the Pennsylvania State University College of Medicine at the Milton S. Hershey Medical Center. The program was established to encourage undergraduate students to pursue careers in internal medicine, family practice, and pediatrics. This program was developed to attract high quality students who have a genuine interest in primary health care. Various programs introduce students to the Pennsylvania State University College of Medicine's primary care mission, identify students who have primary care potential, and provide students with mentoring, primary care, and pre-clinical experience.

Specifically, the Pennsylvania State University College of Medicine offers the following: (a) a Primary Scholars Program, in which students spend two weeks at Hershey participating in lectures, seminars, and clinical experiences; (b) a Primary Care Early Acceptance and Admissions Program, through which students can

apply for admission to the Pennsylvania State University College of Medicine at the end of the sophomore year of college; (c) a Primary Care Summer Academic Program for minority students and students from rural and medically underserved areas, through which the participants pursue studies in basic sciences and gain clinical experience; and (d) a Primary Care Mentoring Program, through which students are assigned a mentor, a preceptor, or faculty affiliate of Penn State University College of Medicine, who is located in the same town or region as the student.

To apply for acceptance into programs, students must meet criteria established by the Pennsylvania State University College of Medicine and apply through the Health Professions Advisory Committee at Elizabethtown College. The Pennsylvania State University College of Medicine selects those students who will benefit from specific components of the program.

Doctor of Osteopathic Medicine

Elizabethtown College and the Philadelphia College of Osteopathic Medicine (PCOM) offer an Articulation Agreement as outlined below:

Acceptance of Students

For the term of this agreement, PCOM agrees to admit qualified Elizabethtown College students to its Doctor of Osteopathic Medicine Program provided said students have successfully completed their undergraduate prerequisites for medical school at Elizabethtown College and fulfilled the admission requirements for PCOM as set forth in the two programs below.

Programs

The affiliated PCOM-Elizabethtown Education curriculum shall consist of two academic alternatives, both of which require the student to successfully complete four years of medical school education at PCOM:

a. Accelerated Academic Program [3 + 4 Program]: Students who have completed a minimum of 99 undergraduate semester hours and enter PCOM following their junior year at Elizabethtown College.

b. Traditional Academic Program [4 + 4 Program]: Students who have completed all requirements for the Bachelor of Science Degree and enter PCOM following their senior year at Elizabethtown College.

Admissions Criteria

Applicants will be accepted into the Program if they satisfy the eligibility requirements set forth herein, are recommended for admission by the Joint Admissions Committee (see below), and are interviewed and accepted by PCOM's Faculty Committee on Admissions.

a. 3 + 4 Program: The Faculty Committee on Admissions at PCOM considers applicants during their junior year at Elizabethtown College for admission into PCOM following the completion of said academic year.

i. Candidate must complete course requirements as listed in PCOM's catalog.

ii. Candidate must have earned (on the 4.0 grading system) the following minimum grade point averages at Elizabethtown College:

1. Science GPA 3.2
2. Overall GPA 3.2

iii. Candidate will take the Medical College Admissions Test (MCAT) in the spring of his/her junior year at Elizabethtown College. The candidate must earn a minimum score of seven in each category on the MCAT to be considered for admission.

iv. Candidate will submit an application to PCOM through AACOMAS by mid-January of the third year at Elizabethtown College.

v. Other criteria for admission that PCOM may establish from time to time.

b. 4 + 4 Program: The Faculty Committee on Admissions at PCOM shall consider applicants meeting the following criteria:

i. Candidate must complete course requirements as listed in PCOM's catalog.

ii. A grade point average of at least 3.0 through the end of the junior year at Elizabethtown College.

iii. MCAT scores of at least seven in each category.

iv. Other criteria for admission that PCOM may establish from time to time.

Admissions Procedure

a. Elizabethtown College will supply PCOM with a list of up to 15 students who have indicated their intent to apply for enrollment in the Program during their sophomore year in order that PCOM might communicate with them regarding the program. Elizabethtown College will also supply PCOM with an annual list of students who intend to apply to the program that year.

b. Joint Admissions Committee.

i. A five member committee composed of two members appointed by PCOM, two members appointed by Elizabethtown College, and one member who is a practicing osteopathic physician* in Pennsylvania selected by Elizabethtown College and approved by PCOM shall be established for the purpose of making recommendations to PCOM on applications to the Program.

*The physician member of the Joint Admissions Committee shall, whenever possible, permit interested students to observe his/her practice, enabling students to become familiar with osteopathic medicine and thereby becoming acquainted with interested students, allowing said physician to better evaluate their applications.

ii. The Committee shall meet at least once per year at times and places agreed to by the parties. Meeting may also be held by conference call when necessary.

Selection Process

a. Interview. In September of each year, the Joint Admissions Committee will select candidates to be interviewed for acceptance into the Program. No applicant whose application is incomplete will be considered for an interview.

b. Joint Decisions. The final recommendation regarding a candidate's application will be made at a Joint Admissions Committee meeting following the interview process. In the event that the meeting cannot be held, the PCOM members of the Joint Admissions Committee will review the application and notify the Elizabethtown College representative of their decision.

c. Final Decision on Admission. The final decision on admission to the Program shall be made by the PCOM's Faculty Committee on Admissions after receiving the recommendation of the Joint Admissions Committee and the candidate has had a formal PCOM interview. Final decisions will be made between November 15 and November 30 of the year in which the application is submitted for admission for the term beginning the following August.

Degrees Awarded

a. Baccalaureate Degree/3 + 4 Program: Elizabethtown College shall award a baccalaureate degree upon receipt of an official transcript indicating the successful completion of one year with a grade of "C" or above in each course.

b. Baccalaureate Degree/4 + 4 Program: Elizabethtown College shall award a baccalaureate degree upon completion of the undergraduate requirements associated with the selected degree plan in a respective major.

c. Doctor of Osteopathic Medicine Degree: PCOM shall award the degree of Doctor of Osteopathic Medicine to students completing all of PCOM's requirements for same as set forth in the PCOM catalog.

For further information, contact the Department of Biology.

Forestry and Environmental Management

Bachelor of Science

The College offers a cooperative program with Duke University which leads to a Bachelor of Science degree from Elizabethtown College and a Master of Forestry or Master of Environmental Management from Duke University. Students undertaking this major gain a wide exposure to the liberal arts by fulfilling the College's Core Program in addition to courses in the student's major. The student also gains professional training at Duke in such areas as forest resource management, resource ecology, water and air resources, resource economics and policy, coastal environmental management, or environmental toxicology, chemistry and risk assessment.

In this program, the student spends three years at Elizabethtown College, fulfilling the Core Program requirements and earning at least 101 credits before transferring to Duke. The student spends at least two years at Duke's School of the

Environment. In the first year at Duke, the student completes the undergraduate degree requirements (24 credits) and is awarded the bachelor of science degree from Elizabethtown. After an additional two or three semesters, Duke awards the degree of Master of Forestry or Master of Environmental Management. The program leading to a master of forestry degree from Duke University is accredited by the Society of American Foresters.

In order to prepare students for the professional program at Duke, the College offers a preforestry and environmental management program with major and minor concentrations in biology, business, or political science. While any undergraduate major can be considered for admission to Duke, the student should take at least one year of biology, mathematics, and economics.

Admission to Duke is by application and is based on an evaluation of a student's undergraduate record, Graduate Record Examination scores, letters of recommendation, and interviews. To effectively compete for acceptance, the applicant's grade point average should be at least 3.5.

There are variations of the schedule described below. For further information, contact Prof. Ronald L. Laughlin of the Biology Department.

Majors must complete all Elizabethtown College Core Program requirements. The following courses should be taken:

Mathematics (four credits): Mathematics 117, 121, or 251. If 251 is not taken for Core, it is strongly recommended as an elective. If 121 is not taken, 117 will satisfy the calculus requirement.

Natural and Physical Sciences (eight credits): Biology 111 and Chemistry 105.

Each student completes a major concentration in either biology, business, or political science, and two minor concentrations totaling 18 credits in the other two areas, with at least six credits in each area.

Biology major concentration recommendations are Biology 111, 112, 313, 313L, 321; two courses from Biology 211, 212, 235, 331, 332, and 347; and Chemistry 105. Minor concentration recommendations are Biology 111, 112, 331; if only six credits are elected, they should be Biology 111 and 112. Chemistry 113, 114 (Organic chemistry) is required for Environmental Toxicology, Chemistry, and Risk Assessment programs.

Business major concentration recommendations are Accounting 101; Economics 101, 102; Business Administration 265, 330, 331 and Computer Science 120. Minor concentration recommendations are any combination of Accounting 107, Economics 102; Computer Science 120, Business Administration 265. Economics 102 is strongly suggested.

Political Science major concentration recommendations are Political Science 111, 361, 378, 471. Minor concentration recommendations are Political Science 361, 471; if only six credits are elected, they should be Political Science 471.

Peace and Conflict Studies Minor

The interdisciplinary model in peace and conflict studies consists of six courses and a capstone project. The curricular model incorporates three types of courses: required courses, elective courses in a variety of disciplines, and a capstone seminar research project. In order to provide students with adequate conceptual tools and conciliation skills, the program of study is multi-disciplinary in both method and instruction. The introductory courses orient students to basic concepts and approaches in peace and conflict studies. The elective courses, selected from several disciplines, enable students to shape a personal program of emphasis that taps the analytic and practical resources of various academic fields. The capstone project requires students to synthesize concepts and knowledge from several disciplines in order to address a research problem of practical or theoretical interest.

For further information, contact the Department of Religious Studies. The requirements for the Peace and Conflict Studies minor are:

Required introductory courses: Peace and Conflict Studies 160; Religion 165 and Religion 264.

Elective Courses: (3 courses) from the following list: Business Administration 251; Communications 251, 252; Economics 311, 312; English 251; History 212; Occupational Therapy H302; Peace and Conflict Studies 460; Political Science 245; Psychology 235; Religion 245, 261, 269, 283, 344; Sociology. 204, 301; or Social Work 160. No more than two elective courses shall be chosen from any one department, and at least two of the elective courses must be taken outside the student's major department.

Capstone: A required capstone project designed to integrate previous work and culminate in a major research paper: Peace and Conflict Studies 465, Directed Research Project.

PCS160 Conflict Resolution Practicum

2 credits. Basic skills required for nonadversarial conflict resolution are provided., with significant devotion to exercises and simulated conflict solutions that teach the practice of alternative dispute resolution. Two principal paradigms of conflict resolution: mediation and conferencing receive specific attention. Prof. McAllister.

PCS 460 Internship in Peace and Conflict Studies

Variable credit. Internships with advocacy groups, government agencies, research institutes, and other not-for-profit organizations in the fields of nonviolence, social justice, human rights, disarmament, environmental protection, and Third World development are encouraged. Up to six hours of academic credit may be earned for the internship. *Prerequisites: PCS 160, Rel 165*. Prof. M.G. Long.

PCS 465 Directed Research Project in Peace and Conflict Studies

4 credits. This course is a capstone seminar designed to integrate previous coursework and produce a major research project. *Prerequisites: All other requirements for the PCS minor.* Prof. M.G. Long.

Political Philosophy and Legal Studies Major

Bachelor of Arts

Anthony Matteo (*Director*), Paul Gottfried, W. Wesley McDonald

The interdisciplinary major focuses on the origins, development, and theoretical foundations of Western political philosophy and law. Combining courses from political science, philosophy, and other liberal arts disciplines, this major is especially recommended for students who either are considering careers in law or higher education, and/or desiring an intellectually challenging broad based traditional liberal arts education.

Courses in political science focus on issues such as justice, order, rights, the human condition, and the purposes and ends of law and government. The philosophy courses explore the metaphysical, epistemological, and ethical assumptions undergirding the competing concepts of human nature and society. Students are encouraged to examine the implications of political philosophy on contemporary social and political movements.

For students who are interested in law school, a strong advisory component in terms of proper course work, relevant extracurricular activities, and preparation for the LSAT examination is offered.

A Political Philosophy and Legal Studies major requires 42 hours; specifically, Economics 101; History 213; Philosophy 110; Political Science 223, 224, 301, 302. Sixteen credit hours (4 courses) are required from the political science, philosophy, and history departments with a minimum of one course per department, chosen from the following: Political Science 305, 311, 324, 326, 328, 348; Philosophy 213, 255, 305, 470-479; History 115, 201, 202; and Modern Language at 112 level or higher. Philosophy 470-479 will provide students with practical experience in a law-related field under the guidance of a faculty member teaching in the political philosophy and legal studies program.

Pre-Law Program

Because the training of a pre-law student may be accomplished in almost any academic discipline, such as English, history, political science, philosophy, or business, a committee assists pre-law students during their undergraduate years.

The Pre-Law Committee works with the pre-law student and the student's major advisor to ensure that a reasonable and sound course of study is followed that is acceptable for entry into a school of law. The committee aids the student in selecting a suitable school and advises the applicant on the registration and the preparation for the Law School Admissions Test (LSAT). The committee guides the students in preparation and submission of applications and supervises the requests for letters of recommendation for worthy candidates.

In order to create the most effective curriculum, the pre-law student should introduce himself to the Pre-Law Committee early in the first year to discuss future course scheduling and long-term plans.

The Pre-Law Committee also supervises the activities of the Law Club and works closely with the College's mock trial team, which participates in regional and national mock trial tournaments; both activities are highly recommended for pre-law students. Participants in the mock trial competitions are urged to take Mock Trial I and II, which are taught in the fall and spring semesters. These courses prepare students to participate in intercollegiate tournaments held in the spring semester and are taught by a practicing attorney.

Over the years Elizabethtown graduates have been accepted by and/or attended a wide range of schools of law. Among these are: American University, University of Baltimore, Boston University, Case Western Reserve University, Catholic University, University of Dayton, the Pennsylvania State University Dickinson School of Law, Duquesne University, Georgetown University Law Center, George Washington University, University of Georgia, University of Miami, University of Maryland, University of North Carolina/Chapel Hill, University of Pennsylvania, University of Pittsburgh, University of San Diego, University of San Francisco, Stetson University, Syracuse University, Temple University, Tulane University, Vermont Law School, Villanova University, Wake Forest University, Washington and Lee University, Widener University, and the College of William and Mary.

Social Sciences Certification

Bachelor of Science

The State Board of Education of the Commonwealth of Pennsylvania has announced plans to discontinue issuing the Social Studies teaching certificate that has been in place for generations. Two new certification areas have been created to replace it – Citizenship Education and Social Sciences (Education). Earning the Citizenship Education certificate qualifies the holder to teach history, political science, economics, and geography at the secondary level, grades 7-12. The Social Sciences certificate entitles the holder to teach psychology, sociology and anthropology at the same level.

All students with interest in these programs and who expect to graduate after August of 2004 must complete the requirements of one or both of these new areas of certification rather than follow the older social studies program.

Students with interest in teaching psychology, sociology, and/or anthropology should declare the Social Sciences major. This interdisciplinary program requires coursework in each of these areas along with professional preparation for a role in the secondary classroom.

The specific requirements for the Social Sciences major include: Sociology 101, 301, and a sociology elective; Anthropology 111, 201, 361, and one of the following courses: Anthropology 306, 307, 308 or Sociology 367; Psychology 105, 235, two Psychology electives; Psychology 213 or Sociology 330; and Education 105, 150, 215, 365, 275, 295, 305, 380, 470, and 490. In completing these requirements, college Core requirements, or elective courses to meet the College's graduation requirements, students must complete two courses in English and two courses in

mathematics. Additionally, Social Sciences majors must meet must meet all of the general requirements for students enrolled in certification programs as detailed in the Education section of this catalog.

For additional information on this program, the Citizenship Education certification program, or a dual program including both areas, contact the Department of Education.

Citizenship Education Certification
(Formerly Social Studies Certification)

Bachelor of Science

The State Board of Education of the Commonwealth of Pennsylvania has announced plans to discontinue issuing the Social Studies teaching certificate that has been in place for generations. Two new certification areas have been created to replace it – Citizenship Education and Social Sciences (Education). Earning the Citizenship Education certificate qualifies the holder to teach history, political science, economics, and geography at the secondary level, grades 7–12. The Social Sciences certificate entitles the holder to teach psychology, sociology, and anthropology at the same level.

All students with interest in these programs and who are expecting to graduate after August of 2004 must complete the requirements of one or both of these new areas of certification rather than follow the older social studies program.

Students with interest in teaching history, political science, economics, and/or geography should declare the Citizenship Education major. This interdisciplinary program requires coursework in each of these areas along with professional preparation for a role in the secondary classroom.

For additional information on this program, the Social Sciences certification program, or a dual program including both areas, contact Dr. Elizabeth A. Newell, the Education department's advisor and coordinator of these programs.

Requirements for the Citizenship Education major include: History 115, 201, 202, a European history elective, and a non-European/non U.S. history elective; Political Science 111, 150, 205, and a political science elective; Economics 101, and an economics elective; and two courses from among Anthropology 306, 307, 308, or Sociology 367; and Education 105, 150, 215, 265, 275, 295, 305, 380, 470, and 490. In completing these requirements, College Core requirements, or elective courses to meet the College's graduation requirements, students must complete two courses in English and two courses in mathematics. Additionally, Citizenship Education majors must meet all of the general requirements for students enrolled in certification programs as detailed in the Education section of this catalog.

General Science Certification

Bachelor of Science

Elizabethtown College offers a secondary education certification program in general science designed to lead to a general science teaching certificate in secondary education with a major concentration in biology, chemistry, or physics. The program develops a comprehensive background for teachers, so they may be better qualified to teach science in the general science curricula of junior high and middle school programs. The requirements of each concentration include a broad exposure to the other sciences and to mathematics, and to the instruction experience in teaching provided by the professional education sequence. The Pennsylvania Department of Education requires two English and two Math courses for certification. The specific requirements for each concentration are:

Biology: a minimum of 24 credit hours in biology, which must include Biology 111, 112, and 211; two courses selected from Biology 235, 313/313L, 331, 332, 341, and 347; one course selected from Biology 321, or 324/324L; Chemistry 105 and 113; Physics 103 and 104; two courses from Earth Science 113, 114, 215, and Physics 212; two courses selected from: Mathematics 117, 121, or 251; and Education 105, 150, 215, 265, 275, 295, 305, 310, 380, 470, and 490.

Chemistry: a minimum of 24 credits in chemistry which must include Chemistry 113 114, 213, 214; and eight hours from among Chemistry 116, 242, 323, 324, 326, 327, 343, 344, 352,; Biology 111, 112; two courses from Earth Science 113, 114, 215 or Physics 212; Physics 200, 201; Mathematics 121, 122; and Education 105, 150, 215, 265, 275, 295, 305, 310, 380, 470, and 490.

Physics: Physics 200, 201, 202, 221, 321, and 353; Engineering 210; one additional course in physics (except 212) or engineering; Biology 101, and either 102 or 103; Chemistry 101, 105; two courses from Earth Science 113, 114, 215 or Physics 212; Mathematics 121, 122; and Education 105, 150, 215, 265, 275, 295, 305, 310, 380, 470, and 490.

For further information, contact the Biology Department.

General Science Minor

The General Science minor offers students the opportunity for study of the natural sciences as a group, based on the view that the natural sciences together are the area of secondary interest for the student.

This minor is especially appropriate for, but not limited to, elementary education majors with aptitude and interest in the natural sciences. Although some students may wish to complete a minor in a separate science discipline, others may want a wider curricular base and mix in the content they wish to study. The general science minor provides this while retaining unity and focus. Further, in addition

to providing breadth of study of the natural sciences as a group, it allows for a measure of investigation in depth of a selected discipline.

The minor consists of 24 to 28 credits, including 11 or 12 credits which may be double counted for the Core Program.

The minor in General Science requires seven courses. One required course must be selected from each of the following five disciplines:

Mathematics: (4 credits): Mathematics 117 or 121.

Earth Science: (3-4 credits): Earth Science 113, 114, or 215.

Physics: (4 credits): Physics 103, 200, or 212.

Chemistry: (4 credits): Chemistry 101, 105, 107, or 113.

Biology: (4 credits) Biology 101, 102, 103, or 111.

Two elective courses: (4 credits each) in the same or different disciplines; chosen from any biology, chemistry, earth science, physics or engineering courses above 100-level (or at 100-level if the elected course has a prerequisite in the same discipline must also be completed).

For further information on the minor, contact the Department of Physics and Engineering.

Anabaptist and Pietist Studies Minor

The interdisciplinary minor in Anabaptist and Pietist Studies consists of 24 credits. The curricular model incorporates three types of courses: a required introductory course (4 credits), elective courses in a variety of disciplines (12 credits), and a capstone seminar research project (4 credits). Courses in the minor may not count toward a student's academic major.

The introductory course Religion 225 is designed to orient students to the European historical and theological roots of the Anabaptist and Pietist movements. The elective courses enable students to shape a personal program of emphasis that draws on the resources of three academic disciplines: religion, history, and sociology. The capstone course requires students to integrate and synthesize the insights from several disciplines in a major research writing project. At least two faculty members from differing academic disciplines will read and evaluate the research paper.

Administrative responsibilities for the supervision of the minor resides within the Department of Religious Studies. The requirements for an Anabaptist and Pietist Studies minor are:

Required introductory course: (1 course, 4 credits): Religion 281 or 285, or Sociology 364.

Elective courses: (3 courses, 12 credits) from the following list: Religion 226, 281, 283, 285, 289; Sociology 317; Sociology 364; or History 315.

Required Seminar: Religion 385.

Capstone: a required directed study project designed to integrate previous work and culminate in a major research paper: Religion 465, Directed Research Project.

For further information, contact the Department of Religious Studies and the Young Center.

International Studies Minor

The International Studies minor comprises a cluster of foreign culture, language, and international affairs courses with a largely contemporary focus. Serving as a complement to the academic major, this minor provides the student with enhanced understanding of the conditions in the rest of the world which are making themselves felt in the daily lives of Americans. In addition to the general liberal arts goal of broadening students' horizons of awareness of other peoples and places, the minor offers a valuable complementary education for many career-oriented and pre-professional programs of study.

The minor provides three principal categories of an international education: competency in a second language, knowledge of other cultures, and appreciation of global interdependence among nations.

The requirements for an International Studies minor are:

Foreign language competency (6 credits) in oral and written communication through language and culture beyond the Modern Language 112 level with an oral proficiency rating of Intermediate High/Level I + on the ACTFL/ETS scale, or acquired high proficiency on the Japanese Foundation Proficiency Test as determined by the Modern Language Department.

Required Foundation courses (9 credits) Anthropology 111; (one economics course) Economics 307, 311, or 312; Political Science 245.

Four elective courses (12 credits) to be chosen from this list: Anthropology 307, 308; Business Administration 251, 317, 327, 337, 367; Economics 307, 308, 311, 312; Fr/Ge/Sp 311, 323; Spanish 312, 319; History 227; Political Science 252, 345, 348; Religion 291, 292; Sociology 204. Also: 370 courses which are approved by the Academic Council.

In developing the minor, the student can choose electives to develop a thematic emphasis, such as regions of the world (e.g., Asia, developing nations), relations among nations, or a comparative or disciplinary perspective (e.g., on civilizations, religions, economics or politics). Study abroad is strongly encouraged. The International Studies Minor program advisor helps the student selection courses. For further information, contact Dr. Kurt Barnada, international studies minor program advisor.

Human Services Minor

A minor in Human Services, consisting of a minimum 20 credit hours, is available. The minor provides students the knowledge, values, and skills to explore society's social problems and the intricate social welfare system designed to assist people in need. It also provides the student with an overview of human behavior, social problems, and the development of American social welfare institutions. All students, except social work majors, may pursue this minor. The requirements for the Human Services minor are (*Unless otherwise noted, all courses receive four credits)*:

Required courses: three required courses (12 credits) must be taken: Social Work 160, 233, and 280.

Elective courses: a minimum of eight elective credits of the following courses (four credit hours of which must be outside of the Department of Social Work) must also be taken:

Social Work: Social Work 233 (if not fulfilled within required courses); Social Work/Education 332; Social Work 339, 344, 355, 357, 366, and 481.

Sociology and Anthropology: Anthropology 360; Sociology 220, 204, 215, 217, 301, 305, 342.

Education: Education 270.

Communications: Communications 252.

Modern Languages: American Sign Language 325 (2 credits).

Political Science: Political Science 361, 365.

Psychology: Psychology 221, 225, 401.

For further information, contact the Department of Social Work.

Women and Gender Studies Minor

The Women and Gender Studies minor enables students to use the critical lens of gender to examine, question, evaluate and critique knowledge concerning all dimensions of human existence. An interdisciplinary program, the WGS minor complements many academic majors in a variety of disciplines. For further information contact Dr. Kimberly V. Adams, director of the women and gender studies program.

The Minor requires a minimum of 21 credit hours, comprised of six courses.

Minor Course Requirements: WGS 105, 315, and either 462 or 464.

Minor Elective Requirements: Three of the following courses, at least one from each category (Humanities and Social Sciences):

Humanities: Communication 252, Multicultural Communications; English 251 Multicultural Literature; English 317, Studies in Narrative: Women Writers; History 317, Gender and Western Culture; Religion 323, Women, Gender, and the Hebrew Bible.

Social Sciences: Political Science 365, Women and Politics; Psychology 237, Psychology of Women; Sociology 204, Population & Global Issues; Sociology 305, Marriage and the Family; Social Work 339, Human Sexuality; Social Work 355, Women in Society.

WGS105 SSC Sex and Gender in Society
4 credits **(Social Sciences Core Course)** An introduction to the fields of gender and women's studies, students are helped to understand the social construction of gender and its influence on women's and men's lives. Historical perspectives about women, men, and gender; the structure of public and private institutions; and contemporary issues such as discrimination and harassment, health, and violence are addressed. Feminist research methods and broader social science methods of inquiry are learned. *This course also fulfills the 100-level Social World requirement of the 1990 Core program.* Offered every semester.

WGS315 Feminist and Gender Theory
4 credits. An interdisciplinary study of theory and research methods, development and continued investigation of fundamental concepts (e.g., sex, gender, race/ethnicity, and class); the political positions that have defined the American women's movement (e.g., individual rights); the appropriations and revisions of major theories by feminist thinkers (e.g., Marxism, psychoanalysis); and the grounding of feminist theories in experiences unique to women (e.g., motherhood) are covered. *Prerequisites: WGS 105 and Junior or Senior standing.* Offered alternate years.

WGS 462/462 Directed Research Project
2 or 4 credits. The required capstone designed for students to integrate previous work and produce a major research paper or equivalent project and public presentation of final results. *A research proposal must be submitted to and approved by the WGS research subcommittee prior to course enrollment. Prerequisites: WGS 105, WGS 315, and two approved WGS elective courses from different departments.* See the Director of Women and Gender Studies for more information. Offered as needed.

Academic Policies

Academic Policies

Credit by Examination

Three ways exist for regularly admitted students to receive academic credits and/or advanced placement by examination: (1) College Entrance Examination Board's (CEEB) Advanced Placement Program (AP), (2) College-Level Examination Program (CLEP), and (3) successful achievement on an Elizabethtown College faculty examination (Challenge Testing).

CEEB Advanced Placement Examinations

The College, with the approval of the department concerned, grants advanced placement and credit to students who perform satisfactorily on a CEEB Advanced Placement Examination.

CLEP Examinations

Credit is awarded for appropriate scores on the CLEP examinations according to the following guidelines.

General Examinations

Persons who have completed high school (or its equivalent) prior to taking the CLEP examinations may be awarded Elizabethtown College credits according to the following standards.

1. All General Examinations must be successfully completed prior to the achievement of sophomore status (30 or more recorded college credits).

2. Up to 29 credits may be awarded for scores of 50 or higher on the General Examinations. None of the credits may duplicate college credits already recorded on the transcript or credits for course work in progress at the time of the examination.

3. For the Natural Science Examination, a maximum of eight credits is awarded for scores at or above 50. Four of these credits may be applied to the Core Program requirements in Natural and Physical Sciences.

4. For the examinations in Humanities, Social Sciences, and History, a maximum of eight credits for each examination is awarded for scores of 50 or above. Up to four credits from each area may be applied to the corresponding requirement in the Core Program.

5. Eight credits for scores of 50 or above are awarded for any Foreign Language (French, German, Spanish) College Level I exam; 12 credits are awarded for scores of 52 or above for the French Foreign Language College Level II exam; 16 credits for the German Foreign Language College Level II exam with a score of 63 or higher; and 16 credits for the Spanish Foreign Language College Level II exam with a score of 54 or higher.

6. For the English Composition and Mathematics Examinations, a maximum of four credits are awarded for scores at or above 50. The college algebra-trigonometry, college mathematics and calculus credits may count toward the mathematics area of understanding core requirements.

Subject Examinations

Credits are granted for scores at or above a score of 50. Subject Examinations in an area in which the student will take additional work (either by requirement or elective) must be successfully completed prior to enrolling in college courses in that subject area.

Challenge Testing

Challenge Testing is a comprehensive term encompassing all tests prepared and/or administrated by Elizabethtown College faculty. The types of challenge tests are Tests for Academic Credit and Tests for Placement and/or Waiver.

Tests for Academic Credit are Challenge Examinations in which a regularly admitted Elizabethtown College student requests to be examined for credit in a particular course in the College Catalog. Requests for Challenge Examinations must be approved by the chair of the department in which the course is listed. Practicums, internships, research courses, First Year Seminar, and First Year Colloquium in the Core program are excluded from Challenge Examination.

Tests for Placement and/or Waiver are given for placement in a course sequence such as modern languages and mathematics. Credit is not awarded.

All Challenge Testing is graded on a pass/no pass basis. A grade of pass indicates that the credit and/or advanced placement is to be awarded.

Challenge Tests given at the initiative of the College are administered without fee to the student. There is a per test fee for Challenge Tests given at the request of the student. The fee is for the test itself and is charged regardless of the test results. In addition, 50 percent of the appropriate part-time tuition rate in effect at the time the test is administered is charged for academic credit awarded as a result of performance on Challenge Tests.

Placement Testing

Entering students are placed in mathematics, writing, and modern language classes on the basis of criteria established by the relevant academic departments. Mathematics placement is based on the following factors set forth by the Department of Mathematical Sciences: (1) high school mathematics courses taken and performance in those courses; (2) SAT mathematics score; (3) the student's intended major; and (4) student preferences. In time for the summer orientation program, students entering in the fall semester are placed in Math 011 Intermediate Algebra or a 100-level Mathematical Analysis course in the Core Program. Students placed in Math 011 must successfully complete this course before enrolling in other mathematics or Mathematical Analysis courses. Students may challenge their placement level by taking a mathematics placement challenge exam during the fall orientation program.

Placement in writing courses is determined by the Department of English according to a combination of SAT verbal score and performance in high school English courses. Students entering in the fall semester are placed in either: English 100 Writing and Language, English 150 Advanced Writing and Language, or Philosophy 110 Logic and Critical Thinking. All satisfy the Power of Language requirement in the Core Program. Students may challenge their placement level by taking a Power of Language placement challenge essay test during fall orientation.

Students are placed into modern or ancient languages as determined by the Department of Modern Languages according to language background and placement test results. Students entering the College in the fall semester, and who wish to take French, German, Japanese, or Spanish in the fall, take a placement exam during fall orientation. Students who have studied a modern language in high school for two years or more must take the appropriate modern language placement test. If students have studied more than one modern language, they take the placement test in the language which they have had the most intensive study or the language in which they wish to pursue study further at the college level. Students who have studied a language for less than two full years, or not at all, do not take the placement test and are normally placed in French, German, Japanese or Spanish 111, Fundamentals of Language and Culture I.

Students who wish to use a modern language to fulfill the 100 level Power of Language (Foreign Language) Area of Understanding in the Core Program complete a modern language course at the 111, 112, 211 or 212 level. Students who demonstrate competence at the 111 level enroll in 112. Students who demonstrate competence at the 112 level enroll in 211. If competence is demonstrated at the 211 level, the appropriate course is 212.

The Student's Academic Program

The student's academic program in the first two years is largely intended to fulfill the requirements of the Core Program, which provides a broad education. In the junior and senior years, most curricula afford time for a wide range of electives in addition to the prescribed courses required in a major program.

Academic Advising

Each student enrolled in a degree program is required to complete a major. In addition, students have the option of pursuing a second major and/or one or more minors outside their major discipline. Advisors are assigned for majors, second majors, and minors. (Certain non-degree students are also assigned advisors.)

First Year Advising Program

The First Year Advising Program is designed to touch on all aspects of the first year experience. The goal is to assist first year students in realizing the maximum educational benefits available to them by helping them to better understand themselves and to learn to use the resources of the College to meet their special educational needs and aspirations. Course selection is included but is not the primary task to be accomplished.

Upperclassman Advising

Upperclassmen who have declared a major are assigned an academic advisor from their major department. Upperclassmen who have not yet declared a major are assigned an advisor from the Advising Center.

All advisors work closely with students during the registration period for course selection for the coming semester. Departmental advisors also provide assistance in regard to graduate or professional school and/or career planning.

Graduate Program

Many components of the Graduate program at Elizabethtown College are facilitated the same way as the Undergraduate program. Course registration, graduation clearance, and credit transfer are processed by the Office of Registration and Records in the same manner as they are for the Undergraduate program.

The following policies apply only to Graduate students: (1) The minimum number of credits required to be full-time is nine. Students may not take more than 16 credits without following the Petition for Overload procedure and being assessed and charged per overload credit; (2) All but three courses must be taken on-campus; (3) The maximum number of courses allowed for transfer is three; (4) Pass/No Pass does not apply unless the course is offered Pass/No Pass; (5) Latin honors and the Dean's List do not apply; (6) Only courses graded "F" may be repeated.

The minimum overall GPA needed to stay in the Program is 3.0. Not meeting the minimum overall GPA may result in suspension from the College. To be readmitted, the student must petition the Academic Standing Committee.

It is to the discretion of the student's major department if undergraduate and graduate courses may be taken concurrently. Graduate courses may count toward undergraduate programs; however, Undergraduate courses may not count toward Graduate programs. Undergraduate program courses taken by Graduate students to complete credit deficiencies are free elective credits only and do not fulfill any major requirements. Graduate courses may not be met via Challenge Tests.

Student Responsibilities

Students are required to consult with their major advisors as to course selection, course sequences, graduation requirements, etc. Consultation with the second major or minor advisor is an expectation but not a requirement. It is the student's responsibility to ensure that all graduation requirements have been met and that other requirements, regulations, or deadlines have been observed.

To better prepare our students for the future, many Elizabethtown College departments have restructured their program requirements to include new sequences of coursework and revised credit values. Students are responsible for completing all appropriate requirements and are advised to work closely with their advisor and major/minor department(s) to ensure that all requirements are met.

Advising sheets for academic majors and minors are available in the Office of Registration and Records. Computer-generated degree audits are available on the web. These materials are helpful in tracking program completion requirements.

Declaration and Change of Major/Minor

Students are required to complete a major. In addition, students have the option of pursuing a second major and/or one or more minors outside their major discipline.

Declarations and changes of majors and minors are initiated by the student and facilitated by the Office of Counseling Services. When a change of major or minor occurs, a student's record is transferred from one academic department to another.

Change of Personal Information

Any change of name, address, telephone number, or marital status must be reported to the Office of Registration and Records immediately either as a request through the College web system or in written form. Emailed and telephoned changes can not be accepted. This information must be kept current so that there will be no delay in receipt of information from the College. Changes of name, gender, social security number, etc., require legal documentation.

Full-time/Part-time Status

An Undergraduate student taking 12 or more credits per semester at Elizabethtown College is considered a full-time student and pays full tuition and fees. An Undergraduate student taking fewer than 12 credits per semester pays the regular semester credit rate plus applicable fees and receives a library card and full use of the library facilities.

The National Collegiate Athletic Association regulations stipulate that a student must carry a minimum of 12 credits per semester to be eligible for intercollegiate athletic competition.

Course Load

Since the completion of at least 125 credits is required for a bachelor's degree, a student who plans to graduate in four years must satisfactorily complete an average of 16 credits for each of eight semesters. However, some students wisely elect to take a lighter academic load in order to do better work and choose to attend a summer session, or partial fifth year.

Overload Credits

Undergraduate students may carry up to 18 credits in a semester or eight credits in a six week summer session. A student who achieves a cumulative grade point average of 3.20 or above, or has the approval of the Associate Dean of the Faculty or the Director of Records, may carry up to 19 credits in a semester or eight credits in the summer session. An additional tuition fee is charged for credits in excess of 18 credits in a semester. A petition form for overload credit is available in the Office of Registration and Records or on the web.

Repeating Courses

Courses which may be repeated must be taken at Elizabethtown College. The most recent grade is final and is used in the calculation of semester and cumula-

tive grade point averages. When repeating a course, a student must file the appropriate repeat registration card in the Office of Registration and Records. Failure to do so will result in a duplication of credits carried, a possible delay in graduation, and a decrease in the cumulative grade point average.

The conditions under which courses may be repeated are as follows:

1. Any course in which the student receives an F or NP.

2. Ordinarily, a student may not repeat a course in which a grade higher than F or NP is earned. However, upon request of the student's advisor and the approval of the student's major/minor department chair, a student may repeat a course in the major/minor, or a course that is prerequisite to a Core Program requirement. Only courses for which a grade of C- or lower has been earned may be repeated.

3. A course must be repeated in the same manner in which it was originally enrolled (i.e. MA 151 3 credits may not be repeated as MA 251 4 credits).

Auditing Courses

Students in good academic standing (2.0 or better) may elect to audit courses provided they do not preempt regularly enrolled students and they have the permission of the professor teaching the course.

The requirements for the audit are determined by the professor. Upon completion of all such requirements, the audit is posted on the student's permanent record card. Audit courses carry neither academic credit nor grade.

Audit credits are included in the total credits to determine full-time status and overload charges. A fee is charged on a per credit basis for part-time students who wish to audit courses. Auditors, both full-time and part-time, must also pay any additional fees for labs, studio supplies, and other direct costs. Students may add a course for audit or change a course registration from audit to credit during the first week of class only. Change of course registration from credit to audit cannot be made after completion of the fourth week of the semester. Once a course has been audited, it may not be taken for credit. Likewise, a course that has been completed for credit may not be repeated and recorded as an audit course.

Transfer of Credits

A student who wishes to transfer credits to Elizabethtown College must obtain permission in advance from the Office of Registration and Records. The College transfers credit, but not grades or quality points, for course work taken at another regionally accredited institution for which a grade of C- or better is obtained. The College is not obligated to accept course work for which written permission was not obtained prior to enrollment at another institution.

Students who have achieved junior status (60 credits) through either work at Elizabethtown College, or a combination of work at the College and another institution, are not permitted to transfer additional credits from a two-year institution to Elizabethtown College. Such students may transfer credits from four-year institutions, but only upon the prior approval of the Director of Records.

Students must request that the Registrar's Office of the transferring institution send an official transcript to the Office of Registration and Records at Elizabethtown College. Facsimiled and student delivered transcripts are not accepted.

The records of transfer students from non-accredited and National/American Association Institutions are evaluated on an individual basis.

For more information regarding transcripts and course transference, contact the Office of Registration and Records 717-361-1409.

Transcripts

Transcript requests must be sent to the Office of Registration and Records and received at least one week prior to the date needed. Federal law requires that all requests be made by the student and in writing. Neither telephone requests nor facsimile (fax) requests can be honored; nor can parents, friends, spouses, or potential employers request transcripts.

No transcripts of record are furnished to students whose account is not paid in full. There is no charge for transcripts.

Transcript request forms are available in the Office of Registration and Records or by printing a copy from our website. Letters are accepted instead of the form.

The following information must be included in all requests: (1) Name(s) and address(es) to whom the transcript is to be sent, include specific names/offices when possible; (2) Dates of Elizabethtown College attendance; (3) Student's full name, including maiden name if applicable; and (4) Student's signature.

Students may print unofficial transcripts via the College web system. Unofficial transcripts might not be acceptable to other institutions or potential employers. Elizabethtown College does not send or accept facsimile copies of transcripts.

Registration

Students must register for classes on those days designated on the College calendar. Students registering later than the days specified are charged a late registration fee. No registrations are accepted after the first week of a semester.

A student may register either as a regular or a non-degree student, and as a full-time or part-time student. Regular students only are degree candidates and they must be in an approved major.

A student registers for courses - not for a time or a professor. There is no guarantee that a student will be registered for every course at the time requested.

Many courses have prerequisites, and students are reminded of their responsibility for meeting all prerequisites and for taking courses in proper sequence.

To register for the next semester, a student must have met all financial obligations. Students who do not register during the registration period cannot be guaranteed space in the residence halls or classrooms.

Students register for the fall semester in April. Spring semester registration takes place in November. Master schedules and registration worksheets are furnished to the student approximately three weeks prior to the registration period to allow ample time to make an appointment with the advisor.

Evening students should check with the Center for Continuing Education and Distance Learning for details about registration.

Registration Holds

A student's registration may be delayed as a result of unpaid account balances, incomplete academic records, disciplinary sanctions, failure to meet with the advisor, or incomplete health records. For full-time students, the health record must include a Health Services Physical form and evidence that all required immunizations have been received.

Schedule Changes

Students who have registered may make changes at any time, via the College web system, on a space available basis.

Change of Registration

Courses may be added within the first week of a semester via the College web, and courses may be dropped without academic penalty during the first four weeks of a semester. Course drops must be approved by the academic advisor and completed through the Office of Registration and Records. A student is not withdrawn from a class simply by discontinuing attendance or by notifying the professor. The completion of any registration change is the responsibility of the student, not the faculty member.

Adding Courses

Students may add courses to their schedule during the first week of a semester by accessing their academic schedule via the College web system.

Dropping Courses

Courses dropped from a student's schedule during the first four weeks of a semester are removed from the student's academic record. Drop request forms are available in the Office of Registration and Records. The completed form must be signed by the academic advisor and returned to the Office of Registration and Records; the course drop is not complete until this is done.

Class Absences

Class Attendance

Class attendance policy is determined individually by the faculty members. It is the position of the College that the above-average student should be given some freedom of judgment as to attendance needs, while the average student must, of necessity, be encouraged or required to maintain a record of regular attendance.

Each faculty member announces his or her attendance policy at the start of each semester. A professor or the College may dismiss a student from a course for excessive absences. Such dismissals in weeks 1-4 of the semester result in removal of the course from the student's record; after the fourth week, a grade of WF is recorded for the course. A student may appeal to the Academic Standing Committee for reinstatement to the course.

Students are responsible for consulting with the professor in the case of absences due to illness or other personal problems.

Long-Term Absences

A long-term absence from classes or from campus may result in mandatory withdrawal from the College. After 15 consecutive class days of absence from all classes, a student is considered to have withdrawn from the College. Students absent for verified medical reasons will be granted a Medical Withdrawal (see below).

Withdrawal Policy

Withdrawal from Classes

Students withdraw from classes through the Office of Registration and Records. The course will not appear on the permanent record if the student withdraws on or before the end of the fourth week of the semester. From this time to the end of the eleventh week, a withdrawal will result in a grade of W. All withdrawals after the end of the eleventh week of the semester receive grades of WF unless the withdrawal is from College and is for medical reasons, in which case a W is recorded for each course. A student may not withdraw from individual courses for medical reasons. A grade of WF is calculated into the student's average as though it were an F.

Withdrawal from College

Students who withdraw from the College during a semester also withdraw from all of their classes for that semester. Full-time students withdraw from the College through the Office of Counseling Services; part-time students withdraw through the Office of Registration and Records. Students who withdraw during the semester are expected to leave the campus as of the effective date of their withdrawal.

For purposes of billing, room reservation, academic responsibility, etc., the effective date of withdrawal is the date on which the completed official notice is returned to the Office of Counseling Services or the Office of Registration and Records. A student who withdraws without notification receives no refunds and may incur the full room penalty. Failure to comply with withdrawal procedures may result in loss of the privilege of readmission to the College and the right to the release of a transcript of credits earned.

Medical Withdrawal

A student may withdraw from the College for reason of a serious illness or similar, medically-related circumstances. Medical withdrawal assumes an incapacity that prohibits acceptable academic performance, not simply a hardship or inconvenience. Such withdrawal requires written verification from a physician including diagnosis and dates of treatment. Upon receipt of verification, a proportionate refund is granted.

Medical withdrawal is withdrawal from the College and therefore from all courses. A student does not selectively withdraw from individual courses under the rubric of medical withdrawal.

Leave of Absence

A student may take a leave of absence from the College to study in an approved off-campus program. To arrange a leave, a student should contact the faculty coordinator or director of the appropriate program. Application must be made no later than the registration period of the semester prior to the one in which the leave begins. Administrative fees for off-campus programs are payable at the time a student applies for the leave. A leave is approved upon the student's acceptance into the program. Registration information is sent to students on leave prior to registration. The registration form and deposit must be returned to the Office of Registration and Records by May 1 or December 1 to ensure a place in the College and in courses.

Readmission

Students who leave the College in good academic standing (minimum 2.0 cumulative grade point average) gain readmission by written request to the Office of Registration and Records. Students who leave the College while in academic difficulty (below 2.0 cumulative grade point average) must petition the Academic Standing Committee for readmission.

Credits, Grades and Quality Points

Credit

"Credit" is equivalent to "semester hour." A semester hour signifies work completed in one 50-minute recitation period per week, or two or more 50-minute laboratory periods per week, for a semester of 15 weeks, or an equivalent learning experience.

Grades

Grades are reported as *A, B, C, D, F*. Plus and minus distinctions are made. Designations of *I, W, WF, P, NP* and *AUD* are used in appropriate situations.

Grade definitions are:

A	Distinguished
B	Above Average
C	Average
D	Poor
F	Failure
I	Work Incomplete
W	Withdrawal from course
WF	Withdrawal failing
P	Pass
NP	No Pass (failure)
AUD	Audit

Grades submitted to the Office of Registration and Records are considered official at the time submitted. Official grades can be changed only by successful

appeal under the College's Grade Appeal Policy or by an instructor's petition to the dean of the faculty to correct a documented grading error.

Grade appeals and evidence of grading errors must be submitted within 30 days of the date on which the grade was formally issued from the Office of Registration and Records. Exception to the 30-day time limit requires formal petition to and approval of the Academic Standing Committee.

Incomplete Grades

A grade of "I" may be obtained by making a formal request to the professor of the course in question. The student and the professor must sign a written agreement which specifies the nature and the quantity of the work to be completed and the projected date of completion. Grades of "I" are assigned for extenuating circumstances only. They are not given simply to allow additional time to complete required course work or to improve course grade. In addition, a professor may use the "I" in cases of suspected academic dishonesty.

All grades of "I" received in the fall semester must be removed by April 1. Those received in the spring semester or summer session must be removed by October 1. Failure to do so results in a grade of F.

Quality Points

A 4.0 quality point system is used. Quality points are assigned as follows:

Letter Grade	Quality Points per Semester Hour of Credit
A	4.0
A–	3.7
B+	3.3
B	3.0
B–	2.7
C+	2.3
C	2.0
C–	1.7
D+	1.3
D	1.0
D–	0.7
F, WF	0.0

Grade Point Average Calculation

The grade point average is dependent upon the credits attempted and the quality points earned. To determine the quality points earned for a semester, multiply the credits for each course by the quality points for the grade earned in the course, sum the results and divide by the total credits attempted in the semester. Courses in which a grade F or WF is received are included in the calculation. Courses in which a grade of W or I is recorded are excluded, as are Pass/No Pass and Audit courses.

The cumulative grade point average, and the grade point average in the majors and minors are calculated in the same manner as the semester grade point average. All courses that could fulfill a requirement for the majors or minors, whether in excess or not, are used for the grade point average calculation.

Pass/No Pass Grading

The Pass/No Pass grading option is intended to encourage students to explore areas of study beyond those of their major or minor. Courses registered on the Pass/No Pass basis earn credits (for grades of P) but are not included in the calculation of the grade point average. Students may select one other course per semester to be graded in this manner under these conditions:

1. A student must currently be junior or senior standing (60 or more credits).
2. The cumulative average must be 2.75 or higher.
3. The selected course may carry no more than four credits and must be a free elective. It may not satisfy a Core Program requirement, and may not be a course that could fulfill a requirement for the student's major or minor.
4. No more than four courses in total (excluding Physical Well Being activity courses) may be taken under this grading option.

All students may elect to take Physical Well Being activity courses Pass/No Pass. Pass/No Pass registration must be completed during the first four weeks of the semester. Forms are available in the Office of Registration and Records. Once a course is registered under the Pass/No Pass option, it may not be changed. Grades of D– or higher are recorded Pass; grades of F are recorded No Pass.

Early Warning System

Mid-term grade reports are not issued. However, an early warning system is used. Students carrying D or F grades in 100 or 200-level courses at the end of the fifth week of the semester are notified of their deficient performance. These students are encouraged to consult with their instructors and to make use of Learning Services resources in order to improve their performance.

Final Examination Policy

All academic courses are expected to conclude with a final examination administered during the assigned time of the examination period. *Within the last three meeting days for classes (not for any individual course) prior to final examinations, no unit tests or quizzes of any type may be administered. Due to the structure of courses involving laboratory examinations/practica, a laboratory examination/practicum can be given during these final three days prior to final examinations. In addition, major papers and projects can be assigned due dates that fall within the last three meeting days for classes, providing the due dates are specified in the syllabus.*

A laboratory section, an advanced seminar – in which an assigned paper or project is the major activity, a performance class – in which a recital or similar artistic performance is required, an internship, or a practicum may or may not have final examinations depending upon the judgment of the instructor. Any fac-

ulty member seeking an exception to the final examination rule for an academic course shall first secure the approval of the department chair and then that of the provost.

Students as well as faculty members are expected to abide by the published examination schedule. However, students with three examinations in one day may request of a professor that one examination be rescheduled during the examination period. There is no obligation on the part of the faculty member to reschedule the examination. All requests for rescheduling an examination must be made at least five class days before the start of the final examination period. Students with four examinations in one day may request that one or two of the examinations be rescheduled, following the same procedure. When a scheduling conflict cannot be resolved between faculty member(s) and student, the student may appeal to the Provost.

Class Standing

The student's class standing is determined on the basis of the number of credits earned. After earning 30 credits, a student is considered a sophomore; with 60 credits, a junior; with 90 credits, a senior.

Academic Standing

Academic Good Standing

Students in academic good standing maintain a minimum 2.0 cumulative grade point average.

Academic Probation

Academic probation means that a student is in danger of being dismissed from the College for academic reasons. Students who fall into the following categories are placed on academic probation:

Semester hours Attempted	**with**	**Cumulative Grade Point Average below:**
1 - 18		1.7
19 - 36		1.8
37 - 54		1.9
55 - 72		1.95
73 or more		2.0

A student on academic probation normally should limit his or her academic load to three courses or 13 credits, whichever is less, in any semester in which the probation exists. The summer maximum should be two courses or eight credits.

Academic Dismissal

The College, upon recommendation of the Academic Standing Committee, may at any time dismiss from the College a student who is experiencing academic difficulty. A student should be aware that all cases are decided individually and that poor academic performance may result in dismissal at the end of any semester.

A student who is in academic difficulty (below 2.0 cumulative grade point average) may be requested by the Academic Standing Committee, in consultation with the student, to enroll in a special or particular set of courses and to become involved in testing, counseling, or other developmental activities. A student's satisfactory performance in such assignments may be interpreted by the Academic Standing Committee as satisfactory progress and may make it unnecessary to recommend dismissal.

Readmission of Students Not in Good Academic Standing

A student who leaves the College while in academic difficulty (below 2.0 cumulative grade point average) must petition the Academic Standing Committee for readmission. A student who is readmitted to the College after an absence of five successive years may, upon fulfilling certain requirements, have previous grades of F removed from the cumulative grade point average. For full information, the student should consult with the Office of Registration and Records.

Individual Program Adjustments

Academic departments reserve the right to counsel any student out of a major or minor for academically-related reasons. A student has the right to appeal such departmental action to the provost, who will direct warranted appeals to the Academic Standing Committee.

Academic Honors

Dean's List

A full-time student who earns a semester grade point average of 3.5 or better in 9 or more credit hours of letter graded course work is regarded by the College as having performed with distinction. The student is placed on the Dean's List of Honor Students for the semester.

College Scholars

A College Scholar is a currently enrolled full-time student who, having completed at least 60 credits in consecutive semesters of full-time study at Elizabethtown College, has achieved a cumulative grade point average of 3.75 or higher. Scholars are identified at the end of the spring term and are publicly recognized at the Convocation at the beginning of the following academic year. They are awarded a certificate and their status as College Scholar is recorded on their permanent record.

Graduation with Honors

At the time of graduation, a student who has achieved a cumulative grade point average of 3.5 is graduated *cum laude;* of 3.75, *magna cum laude;* of 3.9, *summa cum laude*.

A transfer student is eligible for and receives these same honors if the student earns a minimum of 60 credits at Elizabethtown College and is recommended for honors by the major department.

Honors in the Discipline

Honors in the Discipline are awarded to outstanding graduates majoring in the various disciplines. To receive this designation, the student must prepare a research or creative project; the completed project must be judged outstanding by the faculty of the department. Invitation of the major department is required for a student to begin an honors project. In addition, a grade point average of at least 3.5 in the major is required.

Honors in the Discipline are noted in the graduation program and on the academic transcript. A student may receive recognition in more than one discipline. Departments may recognize more than one graduate in a year. Each department determines the specific criteria used to judge its students' projects.

Special Privileges

Scholar's Privilege

A full-time student who appeared on the Dean's List of Honor Students for the preceding semester may, with the permission of the instructor, attend any class in the College on a space available basis as a scholar's privilege without registration or credit.

Departmental Student Privilege

A full-time or part-time junior or senior student, with the permission of the instructor, may attend any class within the student's major or minor department on a space available basis without registration or credit.

Graduation

The Ceremony

Graduation from Elizabethtown College is celebrated once each year in May. The ceremony is typically held in the morning of the third Saturday in May, outdoors in The Dell, except in cases of inclement weather, when the ceremony is held inside of Thompson Gymnasium. Students who complete all graduation requirements in the previous summer or fall, or the current spring semester are recognized in this ceremony. Students may participate in only one graduation ceremony.

Students majoring in music therapy and occupational therapy who have completed all course work participate in the May graduation ceremony, but do not receive their diplomas until their respective clinical experiences are completed.

Clinical laboratory sciences majors whose hospital work is graded and recorded on the permanent record card participate in the May ceremony immediately preceding completion of their clinical year.

Senior students not actually graduating may petition to indicate their desire to participate in the commencement exercises and for verification of their status as a "member of the class." To be eligible for this status, students must have a 2.0 grade point average in both major and overall at the time of the ceremony and have no more than 6 credits hours of course work remaining. (Up to 10 credit hours can be approved in special circumstances.) These students are designated as "early participants." Early participants in commencement march with their class, have their name listed in the official program, and are called to the platform for recognition as a member of the graduating class. Petitions are due to the director of records by February 15.

Honors are listed in the commencement program for those students who have actually graduated or whose only remaining requirement is the non-credit clinical experience.

Credit Requirements

To receive a bachelor of arts, bachelor of science, or bachelor of music degree from Elizabethtown College, the student must earn a minimum of 125 credits. (MA 011 is not counted toward these credits.) In the case of engineering, clinical laboratory sciences, and other special programs, the number of credits required is indicated in the program outline (see departmental listings for specific information).

No more than one bachelor's degree is ever awarded to an individual by Elizabethtown College; however, students may complete a second major, a minor, or teacher certification subsequent to graduation.

Program Requirements

Students are required to successfully complete all requirements of the major and all of the Core Program requirements. The College does not guarantee graduation to any student unable to complete requirements of a specific program or academic major.

In addition to their major, students have the option of pursuing a second major and/or one or more minors. Second majors must include at least 15 credits not included in the first major. For each minor, the student must complete at least eight credits that are not used to fulfill the requirements of the major(s) or another minor.

Second majors and minors represent additional knowledge and interest in areas outside the first major. Therefore, second majors and minors must be selected in disciplines outside the first major. Major and minor disciplines are determined by the predominant course prefix of the major/minor course requirements. For secondary education majors, the major subject area is considered to be the discipline of the major.

Grade Point Average

To be eligible for graduation, a student must have a cumulative grade point average of at least 2.0, with a minimum average of 2.0 in a major (and a 2.0 in a minor if the minor is to be recorded on the student's transcript). A student transferring from other colleges must have an average of at least 2.0 in courses pursued in residence at Elizabethtown College.

On-Campus Credits

To meet graduation requirements, the student must earn on-campus credits as follows: (l) a minimum of 15 credits in the major, at least eight of which are at the upper level (normally 300 and 400 level); and (2) at least 30 of the last 60 credits.

To recognize completion of a minor on the transcript, a student must have completed at least nine credits of the requirements on the Elizabethtown College campus and must have earned a baccalaureate degree at Elizabethtown College.

Note: Credits earned through the Dixon University Center in Harrisburg, Lancaster campus, Brethren Colleges Abroad program, Nihon University, International Study Centre at Herstmonceux Castle at East Sussex, England, or University of Newcastle, Australia, while the student is matriculated at Elizabethtown College, are considered on-campus credits.

Other Requirements

Graduation requirements are governed by the College Catalog dated four years prior to graduation or, for major requirements, by the College Catalog in effect at the time of graduation, if the student so chooses. Transfer students are subject to the requirements of the College Catalog in effect when they begin studies at Elizabethtown College or, for major requirements, the one in effect at the time of graduation. In no case however, may a student use a College Catalog dated more than four years prior to graduation to determine requirements for a degree, nor may a combination of College Catalog requirements be used.

Elizabethtown College will graduate only those students who meet the moral and financial obligations incurred in pursuit of their studies. The completion of the required number of credits does not in itself constitute eligibility for graduation.

It is the responsibility of the candidate for a degree to make formal written application for the degree to the Office of Registration and Records by February 15.

The Office of the President must be notified by any student who plans to graduate in absentia.

Academic Judicial System

Judicial Structure

Responsibility for judicial matters of an academic nature is assumed by the Academic Standing Committee and the Academic Review Committee.

The Academic Standing Committee is comprised of four faculty members and the Associate Dean of the Faculty. The committee handles matters pertaining to academic probation, academic dismissal, readmission, and deviations from the academic curriculum of the College.

The Academic Review Committee is comprised of three faculty members, two students, and one administrator appointed by the President. The Provost serves as convener of the committee but is not a member and does not vote in decisions made by the committee. The committee handles matters pertaining to academic dishonesty and student appeals of course grades.

Academic Due Process

At Elizabethtown College, academic due process is understood to include the following student rights:

With Regard to Grading:

1. To receive a specific explanation of the manner in which a course grade was determined.

2. To appeal a course grade if the student believes that a grade was influenced by matters other than academic performance, class attendance, and punctuality in submitting assignments.

With Regard to Academic Dishonesty:

1. When penalized for academic dishonesty, to receive a written notification specifying the nature of the infraction and the recommended penalty.

2. To request a hearing before the Academic Review Committee when found by a faculty member to be in violation of the standards of academic integrity and to receive a written statement from that board summarizing the findings of the board and its disposition of the matter.

3. To request a hearing before the Academic Standing Committee when recommended for academic dismissal due to cheating, plagiarism, or other violations of the standards of academic integrity.

4. To inspect any information on file in the Office of the Provost dealing with incidents of academic dishonesty attributed to that student.

Standards of Academic Integrity

Elizabethtown College assumes that students will act honorably. Students are expected to adhere to the Pledge of Integrity adopted by both the students and the faculty in 1995.

ELIZABETHTOWN COLLEGE PLEDGE OF INTEGRITY

Elizabethtown College is a community engaged in a living and learning experience, the foundation of which is mutual trust and respect. Therefore, we will strive to behave toward one another with civility and with respect for the rights of others, and we promise to represent as our work only that which is indeed our own, refraining from all forms of lying, plagiarizing, and cheating.

All new students are expected to affirm and uphold the Pledge. Reflecting commitment to the pledge, new students will be expected to sign a pledge stating, "I pledge to be honest and to uphold integrity."

Academic Dishonesty, including cheating and plagiarism, constitutes a serious breach of academic integrity. Academic work is expected unequivocally to be the honest product of the student's own endeavor.

Cheating is defined as the giving or receiving of unauthorized information as part of an examination or other academic exercise. What constitutes "unauthorized information" may vary depending upon the type of examination or exercise involved, and the student must be careful to understand in advance what a particular instructor considers to be "unauthorized information." Faculty members are encouraged to make this definition clear to their students.

Plagiarism is defined as taking and using the writings or ideas of another without acknowledging the source. Plagiarism occurs most frequently in the preparation of a paper, but is found in other types of course assignments as well.

Other forms of academic dishonesty include (but are not limited to) fabrication, falsification, or invention of information when such information is not appropriate. To knowingly help or attempt to help another student to commit an act of academic dishonesty is considered to be an equivalent breach of academic integrity and is treated as such.

Cases of academic dishonesty are reviewed individually and according to the circumstances of the violation; however, students who violate the standards of academic integrity can normally expect a grade of F in the course and/or possible dismissal from the College.

Procedures for Dealing with Cases of Academic Dishonesty

Instances Involving Coursework:

1. When an instructor discovers evidence of academic dishonesty an informal conference is scheduled promptly with the student or students involved. If a professor is unable to schedule a conference before grades are due, a grade of Incomplete for the course may be assigned in the interim.

2. If, after the informal conference, the instructor is satisfied that there is evidence of academic dishonesty, a second conference is scheduled with the student involved (in cases involving more than one student either individual or group conferences may be appropriate depending on the particular circumstances of the case.) It is preferable that this conference take place in the presence of another faculty member. The student has the right to have a fac-

ulty member, another student, or a member of the Office of Counseling Services present as an observer.

3. If, following the second conference, the initiating faculty member is satisfied that there is proof of academic dishonesty and if the infraction is serious enough to warrant a recommendation of penalty beyond repetition of the assignment or examination, the faculty member will, with the approval of the department chair or equivalent, give the accused student(s) written notification specifying the infraction and the recommended penalty. A copy of this notification is sent to the Office of the Provost. Should the department chair not be in agreement with the faculty member, and the matter not be resolved at the department level, both the faculty member and the department chair will give written notification, with rationale, to the Provost. The Provost will then review the matter and recommend action, and will inform the student, in writing, of the recommended action.

4. The accused student(s) will have the alternative of accepting the recommended penalty or requesting a hearing before the Academic Review Committee. The request for a hearing must be presented in writing to the Provost within five days of receipt of the notice of information.

5. The Provost will review cases of academic dishonesty and exercise judgment as to whether a student found to be in violation of the standards of academic integrity should be recommended for dismissal from the College. If it is the Provost's judgment that academic dismissal is appropriate, the provost will notify, in writing, both the student and the Academic Standing Committee of his decision and the factors that influenced that decision.

6. The student will have the option of accepting the Provost's decision or requesting a hearing before the Academic Standing Committee. The request for a hearing must be presented in writing to the chair of the Academic Standing Committee within five days of receipt of the provost's decision

Other Instances:

All forms of dishonesty in academic matters are violations of the Standards of Academic Integrity and are the concern of the Academic Review Committee. Inappropriate actions, for example, lying to College officials or forgery of advisors' signatures, are violations equivalent to cheating and plagiarism in coursework. Such dishonesty will be dealt with following the general procedures set forth above. Cases are reviewed individually and according to the circumstances of the violation; possible penalties include suspension or dismissal from the College.

Grade Appeals

Grades are considered to be official at the time submitted by the faculty. Questions concerning grades must be called to the attention of the instructor immediately after the official grade report is received. Formal grade appeals must

be submitted within 30 days of the date on which the grade was issued from the Office of Registration and Records. Exception to the 30-day time limit requires formal petition to and approval of the Academic Standing Committee.

Procedures For Grade Appeals

1. If a student believes that a final grade has been influenced by matters other than academic performance, class attendance, and punctuality in submitting assignments, the student may request an informal conference with the instructor to discuss the matter.

2. If the outcome of the informal conference is not satisfactory, the student may submit a request in writing for a meeting on the matter to the department chair (or another faculty member in the department in instances involving the chair.) For the meeting, the student will prepare a written statement outlining the basis for the appeal.

3. The decision regarding the course grade in question will be made by the faculty member in consultation with the chair (or the other faculty member in the department in instances involving the chair). The student will receive immediate, written notification of that decision. Should the faculty member and the department chair not be in agreement, and the matter not be resolved at the department level, both the faculty member and the department chair will give written statements to the Provost explaining the reasons for upholding or altering the grade. The Provost will then review the matter and recommend action, and will inform the student, in writing, of the recommended action.

4. The student has the alternative, within ten days of the notice of the decision, of accepting the grade or submitting a further appeal, in writing, to the Provost.

5. The Provost will review the detail of the appeal. The Academic Review Committee will hear hear warranted appeals as determined by the Provost.

College Life

Athletics

Religious Life

Health Services

Multicultural Affairs

Residence Life

Clubs/Activities

Student Services

College Life at Elizabethtown

Elizabethtown College recognizes that learning and achievement extend well beyond the classroom and that success in college depends in large part on the extent to which students engage directly in their own learning and connect to the broader campus community. To ensure each individual student's success, the division of College Life, overseen by the Dean of College Life, provides a comprehensive array of co-curricular programs and services.

Each area of service is intended to facilitate the growth and development of individual students and enrich their overall experience of the campus community. Academic support services including Academic Advising, Career Services, Counseling Services, Learning and Disability Services are provided primarily through the Center for Student Success (see more detailed information on page 244). Other co-curricular programs and services are made available to students through the offices and departments listed below.

Dean of College Life

All aspects of College Life report to the dean who serves as the chief student affairs officer on campus as well as the primary advocate for students. The Dean works with College Life staff as well as students and faculty to shape the living/learning environment and enhance the quality of life for all students.

Athletics

Elizabethtown College sponsors one of the nation's top NCAA Division III intercollegiate athletics programs, as well as a multi-sport intramural sports program. The Blue Jays' 20-team, 13-sport varsity athletic program operates within the principles and rules of the NCAA and the Commonwealth and Middle Atlantic State Collegiate Athletic Conferences' philosophy of amateur student participation. The integration of the students' academic and athletic experiences is of utmost importance. The intramural program, best known for its spring soccer tournament, flag football, and Frisbee golf, accommodates students, faculty and staff who are interested in sport participation.

Chaplain and Office of Religious Life

The Chaplain and Religious Life office works to identify and serve the diverse spiritual and religious needs of the Elizabethtown College community. Staff and students create experiences for spiritual growth and religious exploration through soul-searching café discussions, interfaith dialogue, Christian worship, faith-based service, special events, and student religious clubs. In addition, the Chaplain is available to students for spiritual mentoring, pastoral counseling, and vocational exploration.

Health Services

Health Services views students holistically and provides services to students that support them in managing their health. In addition to helping students during illnesses, staff and student paraprofessionals offer educational programs and individual opportunities to help students stay healthy and to learn how to become advocates as well as good consumers in their own health care. The Center is staffed by full-time nurses, a nurse practitioner, and has limited physician hours available on a weekly basis.

Office of Multicultural Affairs

The mission of Multicultural Affairs is to provide an inclusive environment that examines, recognizes, accepts, and affirms human differences and similarities related to national origin, religion, gender, disability, race/ethnicity, sexual orientation, age, and socio-economic status. Every year, the Office sponsors a number of academic, cultural, leadership and social programs to help students of diverse backgrounds achieve their goals.

Residence Life

Elizabethtown College offers several housing options. These include traditional residence halls, Student Directed Learning Communities (SDLC), and on-campus townhouses and apartments. Theme Learning Communities (TLC), which are focused residential living/learning environments, are designated within each residence hall. Professional and student Residence Life staff members contribute to the educational experience of residential students by facilitating the Community Standards Program, providing educational programs, and managing various administrative tasks.

Student Activities

The Office of Student Activities works closely with students and student groups to offer a wide range of programs and events designed to encompass cultural, intellectual, and social activities. The office of Student Activities promotes leadership development and assists student clubs and organizations in planning, scheduling, and publicizing activities for the maximum benefit of the College community.

The College is home to many student-led clubs and organizations. As many as 80 clubs may be active in any given year and the areas represented by these organizations are as varied and limitless as students' own interests. There also are approximately 20 honorary societies from a variety of academic disciplines active on campus.

Elizabetown's fine and performing arts program provides over ten opportunities for students to become involved in music. From Concert Choir, which is an auditioned group, to the woodwind quintet, students of all majors may experience the joy of playing and/or performing music.

In addition, students are intricately involved in the operation of our various campus media. *The Etownian* newspaper, WWEC 88.3 FM radio station, ECTV Channel 40 television station, *Fine Print* literary magazine, and *Conestogan* Yearbook are all staffed by students and serve as either credit-bearing or co-curricular experiences.

The Elizabethtown College community also enjoys a number of traditions and special events each year that are part of what makes our campus unique. From Dell Day (a day of non-classroom activity for the entire campus community), to Homecoming and Family Weekend, TGIS (Thank God It's Spring) weekend, Into the Streets day of service-learning, New Student Induction, and the First-Year Student Walk, students, faculty, and staff alike are engaged with each other in creating a dynamic, enjoyable place to live, study, and work. The Blue Jay became the athletic mascot in the 1930's, chosen because of its blue and gray coat and its scrappy nature. It later became the College mascot. For additional information about any of the programs and services within College Life, contact the office of the Dean at 361-1196.

Center for Student Success

The Center for Student Success is a comprehensive academic support services center. It is comprised of distinct, yet integrated, service areas: Academic Advising, Career Services, Counseling Services, Disability Services, and Learning Services. The Center for Student Success is located on the second floor of the Baugher Student Center (rooms 212-239) and is open to all Elizabethtown College students.

Academic Advising

Academic Advising provides academic advising assistance that is intended to support and complement the faculty advising system on campus. It is offered to all students at Elizabethtown College. First-year students are assigned a first-year advisor, a faculty member who also serves as their First-Year Seminar instructor. In their second semester, first-year students may declare a major and are assigned a faculty advisor from the student's chosen major department. Deciding (or undeclared) students continue to use their First-Year Advisor for another semester, and are thereafter assigned to Academic Advising in the third and, if necessary, fourth semester.

Academic Advising seeks to improve advising through pre- and in-service training for faculty, Peer Mentors, and College Life staff. Additionally, Academic Advising assists those students experiencing academic difficulty. The five-week Early Warning system is coordinated by this office and is intended to identify first-and second-year students in jeopardy. This early-warning system provides intervention, referral, and support. Students who fall below a 2.0 grade-point-average use the office's services as well. It is the mission of Academic Advising to assist students in the development of meaningful educational plans compatible

with their life goals. Academic Advising is located in the Center for Student Success, Baugher Student Center, room 216.

Career Services

Career Services assists students with career and life designing. A professionally trained counselor is available to help students in exploring majors and/or careers, preparation for graduate study, and developing job search skills for pursuing internships and full-time employment.

Students interested in assessing their interests, skills and values may meet with a counselor to utilize some of the assessment instruments available, such as DISCOVER (a web-based career guidance tool). An on-campus interview program and participation in many career fairs (Graduate School Fair, Internship Fairs and Job Fairs) provide students with opportunities to meet with potential employers. Etown's College Central Network (ECCN), our online job and internship posting system, provides additional student/employer connections and has an Alumni Mentor feature, which allows students to connect with alumni to learn more about careers.

Career Services maintains a website of useful career sites and an on-site Resource Library for students to borrow materials. Students can further develop skills in workshops (e.g. major exploration, resume writing, interviewing skills) conducted by counselors and guests of the College. Career Services is located in the Center for Student Success, Baugher Student Center, room 216.

Counseling Services

Counseling Services provides a broad range of counseling and mental health support services, facilitating students' personal and educational development. Counselors offer short-term counseling, consultation, and/or referral for most issues of concern, including adjustment, conflict, stress, sexuality, abuse, body image and eating disorders, depression, anxiety, and suicidal thoughts. Counseling Services is located in the Center for Student Success, Baugher Student Center, room 216.

Disability Services

The mission of the Disability Services is to help those students with disabilities gain equal access to services, facilities, and programs through reasonable accommodations.

Procedure for New Students

The College does not inquire about disabilities in the admissions process and will not deny a student admission because of a self-disclosed disability if the student meets the academic qualifications for admission.

All new students are sent a "Disability Identification Form" by the Admissions Office which should be returned by June 1, prior to enrollment for

the fall semester, and by December 20, prior to enrollment for the spring semester. Upon receipt of this form, the Dean of Admissions and Enrollment Management sends the information to the Director of Disability Services. The student is sent a letter of acknowledgement and a copy of the "Guidelines for Documentation of a Disability." After receiving and reviewing the documentation, the Director of Disability Services presents the documentation along with the request for accommodations to the Disability Review Board for approval of reasonable accommodations. The Board assesses each request on a case by case basis and grants accommodations within the framework of the Americans with Disabilities Act.

Procedure for Enrolled Students

A previously enrolled student who acquires or discovers that he/she has a disability may have his/her case reviewed by the Board after proper documentation is provided to the Director of Disability Services. The Board endeavors to make every effort to reasonably accommodate disabilities so long as such accommodations do not result in an undue hardship to the College and are not personal in nature.

For further clarification about the policy for students with disabilities, please contact the Director of Disability Services or the Dean of Admissions and Enrollment Management. Disability Services is located in the Center for Student Success, Baugher Student Center, room 228.

Learning Services

The mission of Learning Services is to help each student maximize his/her potential for learning by providing academic support services and resources.

More than 150 student course tutors, recommended by their professors, are trained and available to help peers with course work and study strategies. Student writing consultants, who represent a variety of majors, can provide feedback on any stage of the writing process. Professional staff are available for one-on-one conferences to help with time management, reading, note taking, test taking, learning styles, and learning environments. An off-campus reading program offers a ten-day course at the beginning of the fall semester for a fee through the Learning Services. Learning Services is located in the Center for Student Success, Baugher Student Center, rooms 226-238.

Tuition/Fees

Tuition and Fee Information

2004 – 2005 Annual Expenses*

Full-Time Student (12-18 Credit Hours per Semester)

Comprehensive Fees

	Annual Rate*	Resident	Independent Living Units	Commuter/ Off-Campus
Tuition	$23,710	x	x	x
Room (Traditional)	3,300	x		
Room (Ind. Living Unit)	3,800		x	
Board	3,300	x		
Comprehensive Fee		$30,310	$27,510	$23,710

Rate per semester is 1/2 annual rate

Included in the comprehensive fee is use of: library, campus center, Body Shop, gymnasium and athletic fields, admission to all regular season athletic events on campus, admission to community cultural programs, and subscription to the Etownian. Certain Health Center Services are included.

A limited number of rooms are available for rental as single rooms for an additional $450 per semester. Double rooms are rented as single rooms for an additional $900 per semester, if available.

Partial meal plans are available to students residing in Independent Living Units and to non-residential students at an additional cost. Please contact the Business Office for details.

Other Fees: Full-time Student

1.Per credit hour in excess of 18	$600
2.Med Tech Clinical Year	$2,371
3.Audit per semester hour (over 18 credits)	$200
4.Security Deposit **	$200

*2005-2006 Annual Expenses have not been set. Contact the Admission's Office (361-1400) or your Admission's counselor for this information in spring 2005.
**All full-time students are required to maintain a $200 security deposit on account.

Full-time students may carry up to 18 credits in a semester. A cumulative GPA of 3.20 is required to carry more than 18 credits; the maximum credit load is 19 credits. All credits in excess of 18 will be invoiced at the current part-time day

rate. Course credits, internships, directed studies/independent studies, tutorials, audit courses, and private music lessons are added together to determine the student's status as part-time, full-time, or full-time with "overload" (credits in excess of 18 per semester).

Part-Time Students
(Less than 12 credit hours per semester)

Day-Time Courses	
1. Tuition per credit hour	$600
2. Audit per semester hour	$200
Evening and 2004 Summer Courses	
1. Tuition per credit hour	$380
2. Audit per semester hour	$130

Other Charges: All Students

Fees

1. Challenge Testing*	
a. Challenge Exam for credit	$105
b. Challenge Exam for placement/waiver	$ 70
2. Administrative Fee	
a. Title IV Return of Funds	$100
b. Approved Off-Campus Study/semester	$200
3. Late Fee**	$ 50

*In addition, 50 percent of the appropriate part-time tuition rate in effect at the time the test is administered is charged for academic credit awarded as a result of performance on challenge tests.

**Late fees assessed for occurrences such as late registration, late course changes, and late payment of fees.

Surcharges

1. Private Music Lessons-per 1/2 hr. lesson	$290
2. Directed Study-per credit hour	$100
3. Tutorial-per credit hour	$150

Deposits

An applicant should send the Director of Admissions, Elizabethtown College, a non-refundable matriculation deposit of $200 by May 1st. This deposit will be

kept as the student's security deposit during his or her enrollment at Elizabethtown College.

Tuition Payment Policy

All charges are due on or before the due date for each semester. Checks should be made payable to Elizabethtown College.

Students are sent bills in July and December for one-half of the annual comprehensive fee. All confirmed financial aid is listed on the bill. You should deduct applicable aid from the balance due for any aid not listed on your bill, but referenced on your latest financial aid award letter (excluding FWS). Please note: a student must have full-time status to qualify for most types of financial aid.

All amounts not received by the due date are subject to a one-time late payment fee of $50 in addition to monthly interest at a rate of 1.5% per month, or 18% per year. Loan funds (Federal Stafford, Federal PLUS, Signature, etc.) or any other sources of financial aid not received by the due date are subject to late charges and interest. Recommendation: All loans should be applied for prior to July 1 to help ensure timely receipt.

Elizabethtown College does not accept direct monthly installments or deferred payments for tuition. However, certain third party tuition plans are accepted. For further information, contact the Financial Aid Office at 361-1404 or the Business Office at 361-1417.

Institutional Refund Policy

Notice of withdrawal must be given in writing to Counseling Services. The effective date of calculating refunds is the date of acceptance of a written notice of voluntary withdrawal by Counseling Services. Failure to provide notice of withdrawal will result in an unofficial withdrawal. Refunds and transcripts are withheld by the College until an official withdrawal has been obtained.

If withdrawal occurs within the three weeks prior to registration day in either semester, a resident student is liable for a $150 room penalty in addition to the matriculation deposit.

If a student withdraws, changes credit hours and/or room and board status after the beginning of the semester, the student is obligated to pay actual room and board used to the date of withdrawal, plus 25 percent of the unused room and board charges. Tuition refunds are calculated on the following basis:

First week of classes	75%
Second through third week of classes	50%
Fourth week of classes	25%
Beginning of fifth week of classes	0%

Refunds of tuition and room and board charges for a withdrawal due to medical reasons are pro-rated to the date of withdrawal. Students who are dismissed or suspended from the College are refunded tuition charges according to the stan-

dard policy (see above); board charges are prorated to the date of dismissal or suspension and a 25 percent surcharge of the unused board is assessed; no room refunds are granted under these circumstances.

Refunds for currently enrolled students must be requested in writing.

Financial aid adjustments will be made according to the above refund policy in conjunction with applicable federal refund regulations under the Higher Education Act of 1998 (HEA98).

Return of Federal Student Aid*

The Department of Education, under HEA98, Public Law 105-244 stipulates the way funds paid toward a student's education are to be handled when a recipient of the Student Financial Aid (SFA) Program funds withdraws from school.

A statutory schedule is used to determine the amount of SFA Program funds a student has earned when he or she ceases attendance based on the period the student was in attendance.

Up through the 60 percent point in each payment period or period of enrollment, a pro rata schedule is used to determine how much SFA Program funds the student has earned at the time of withdrawal. After the 60 percent point in the payment period or period of enrollment, a student has earned 100 percent of the SFA Program funds.

In general, the Amendments require that if a recipient of SFA Program assistance withdraws from a school during a payment period or a period of enrollment in which the recipient began attendance, the school must calculate the amount of SFA Program assistance the student did not earn and those funds must be returned.

The percentage earned is one of the following:

> If the day the student withdrew occurs on or before the student completed 60 percent of the payment period or period of enrollment for which the assistance was awarded, the percentage earned is equal to the percentage of the payment period or period of enrollment for which assistance was awarded that was completed.
>
> If the day the student withdrew occurs after the student has completed 60 percent of the payment period or period of enrollment, the percentage earned is 100 percent.

The percentage and amount not earned is the complement of the percentage of SFA Program assistance earned multiplied by the total amount of SFA assistance that was disbursed (and that could have been disbursed) to the student, or on the student's behalf, for the payment period or period of enrollment, as of the day the student withdrew.

For credit hour institutions, the percentage of the payment period or period of enrollment completed is the total number of calendar days in the payment period or period of enrollment for which the assistance is awarded divided into

the number of calendar days completed in that period, as of the day the student withdrew.

If the student receives less SFA Program assistance than the amount earned, the school must comply with the procedures for late disbursement specified by the Department in regulations. If the student receives more SFA Program assistance than the amount earned, the school, or the student, or both, must return the unearned funds as required, and in the order specified.

The school must return the lesser of:

- The amount of SFA Program funds that the student does not earn; or
- The amount of institutional costs that the student incurred for the payment period or period of enrollment multiplied by the percentage of funds that was not earned.

The student (or parent, if a Federal PLUS loan) must return or repay, as appropriate, the remaining unearned SFA Program grant and loan funds. However, a student is not required to return 50 percent of the grant assistance received by the student that it is the responsibility of the student to repay.

The student (or parent, if a Federal PLUS loan) must return the unearned funds for which they are responsible to loan programs in accordance with the terms of the loan, and to grant programs as an overpayment. Grant overpayments are subject to repayment arrangements satisfactory to the school, or overpayment collection procedures prescribed by the Secretary of the Department of Education.

SFA Program funds for the payment period or period of enrollment for which a return of funds is required must be returned in the following order:

Unsubsidized Federal Stafford Loans
Subsidized Federal Stafford Loans
Perkins Loans
Federal PLUS loans
Federal PELL grants
Federal Supplemental Educational Opportunity Grants
Other assistance under Title IV regulations

*Source: 1999-2000 Student Financial Aid Handbook

Absence and Sickness

A student who is absent from College because of sickness or any other reason and who retains a place in class, pays in full during the absence.

Transcripts

No transcripts of records are furnished to anyone whose account is not paid in full. There is no charge for transcripts.

Directory

The Faculty
The Administration
Board of Trustees

Directory

The Faculty

Theodore E. Long, *President*
Professor of Sociology
B.A., Capital University; M.A., Duke University; Ph.D., University of Virginia (1996)

Lisa L. Koogle, *Dean of College Life; Assistant Professor of Education*
B.A., Hood College; M.A., Ph.D., Ohio State University (1997)

David L. Parkyn, *Provost and Senior Vice President; Professor of Religious Studies*
B.A., Messiah College; M.Div., Gordon-Conwell Theological Seminary; Ph.D, Boston College (2004)

Martha C. Pennington, *Dean of the Faculty; Professor of Linguistics*
A.B., Bryn Mawr College; M.A., Ph.D., University of Pennsylvania (2003)

The remaining faculty member listings indicate two dates. The date listed after the person's academic rank indicates date of appointment or promotion to that rank. The date listed after the institutions at which the person earned degrees indicates the date of original appointment to the faculty.

Professors

C. Powell Adams, *Visiting Professor of Business*, (1997)
B.A., B.I.E., University of Florida; M.Admin., The Pennsylvania State University (1997)

Terry W. Blue, *Professor of Education* (2003)
B.A., Juniata College; M.A. Temple University; Ph.D., Penn State University (1990)

Christina A. Bucher, *Carl W. Zeigler Professor of Religion* (2002) *On Sabbatical Spring 2005*.
A.B., Elizabethtown College; M.A.Th., Bethany Theological Seminary, Ph.D., Claremont Graduate School (1984)

Paul M. Dennis, *Professor of Psychology* (1992)
B.A., Bowdoin College; M.A., Ph.D., New School for Social Research (1968)

James L. Dively, *Professor of Biology* (1985)
B.S., M.S., Ph.D., Penn State University (1969)

David C. Downing, *Ralph W. Schlosser; Professor of English* (2003). *On Sabbatical Fall 2004 and Spring 2005 (continues half-time duties).*
B.A., Westmont College; M.A., Ph.D., University of California-Los Angeles (1994)

David B. Eller, *Director of the Young Center, Professor of History and Religion* (1997)
B.A., La Verne College; M.A.Th., Bethany Theological Seminary; Ph.D., Miami University (1997)

Milt Friedly, *Professor of Art* (2000)
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Index

A

Academic Advising 222, 244
Academic Dishonesty 237
Academic Dismissal 233
Academic Due Process 237
Academic Goals 4
Academic Good Standing 232
Academic Honors 233
Academic Integrity 238
Academic Judicial System 237
Academic Majors 22
Academic Minors 24
Academic Policies 219
Academic Probation 232
Academic Program 16
Accounting . . . . . .See Business, Dept. of
Adding Courses 227
Administration 270
Admission to the College 7
Advanced Placement 220
Affiliated Institution Programs 29
Anabaptist and Pietist Studies Minor 215
Anthropology . . . . .See Soc/Anthropology, Dept. of
Art . . . . . .See Fine and Performing Arts, Dept. of
Auditing Courses 225

B

Biology/Allied Health 200
Biology, Dept. of 34
Biology Health Professions 29
BioTechnology 34
Blue Jay 244
Brethren Colleges Abroad Program 28
Business, Dept. of 45

C

Career Services 245
Center for Student Success 244
- Academic Advising 244
- Career Services 245
- Counseling Services 245
- Disability Services 245
- Learning Services 246

Challenge Testing 221
Change of Major 224
Change of Minor 224
Change of Personal Information 224
Change of Registration 227
Chaplain 242
Chemistry & Biochemistry, Dept. of 60
Citizenship Education Certification 213
Class Attendance 227
Class Standing 232
CLEP Examinations 220
Clinical Education Centers 270
College Life 241
College Scholars 233
Commencement 234
Communications, Dept. of 67
Computer Engineering
. . . . . .See Physics & Engineering, Dept. of
Computer Science, Dept. of 76
Continuing Education 32
Core Program 16
- Areas of Understanding 17
- Common Core 16

Counseling Services 245
Course Descriptions 33
Course Load 224
Credit by Examination 220
Credit Requirements 235

D

Dance . . . . .See Fine and Performing Arts, Dept. of
Dean's List 233
Degrees Offered 16
Dell Day 244
Directed Study 27
Directory 253
- Board of Trustees 273
- Faculty 254
- Administration 270

Disability Services 245
Disabilities, Students with 13
Distance Learning 32
Dropping Courses 227

E

Early Warning System 231
Earth Science . .See Physics & Engineering, Dept. of
Economics 49
Economics . . . . . .See also Business, Dept. of
Education, Dept. of 82
Educational Philosophy and Values 2
Engineering .See Physics and Engineering, Dept. of
English, Dept. of 95
Environmental Science 35

F

Faculty Directory 254
Fees 248
Final Examination Policy 231
Financial Aid Information 12
Fine and Performing Arts, Dept. of 104
Forestry & Environmental Management 208
French . . . . . .See Modern Languages, Dept. of
First-year Seminar and Colloquium 16
First-year Student Walk 244

G

General Science Certification 214
General Science Minor 214
German . . . . . .See Modern Languages, Dept. of
Grade Appeals 239
Grade Point Average 230
Grades 229
Graduation 234
- Credit Requirements 235
- Grade Point Average 236
- On-Campus Credits 236
- Requirements 235, 236

H

Hershey Foods Honors Program 12, 25
History of the College 4
History, Dept. of 127

Honors 233
Honors in the Discipline 234
Human Services Minor 217

I

Incomplete Grades 230
Independent Study 26
Induction Ceremony 244
Interdisciplinary Programs 199
- Anabaptist and Pietist Studies Minor 215
- Citizenship Education Certification 213
- Biology/Allied Health 200
- Forestry & Environmental Management ..208
- General Science Certification 214
- General Science Minor 214
- Human Services Minor 217
- International Studies Minor 216
- Peace and Conflict Studies Minor 210
- Political Philosophy and Legal Studies Major 211
- Pre-Law 211
- Premedical Primary Care Program 201
- Premedical and Other Health Professions Programs 203
- Primary Care Pre-Admissions Program ..205
- Social Sciences Certification 212
- Women and Gender Studies 217

International Studies Minor 216
International Studies Opportunities 27
Internships 30
Invasive Cardiovascular Technology 37

L

Learning Services 246
Leave of Absence 229
Legal Studies 211

M

Majors Offered 22
Minors Offered 24
Mathematical Sciences, Dept. of 131
Modern Languages, Dept. of 137
Multicultural Affairs 243
Music ....See Fine and Performing Arts, Dept. of

O

Occupational Therapy, Dept. of 145
Off-Campus Study 26
On-Campus Variations 26
Overload Credits 224

P

Part-Time Status 224
Pass/No Pass Grading 231
Peace and Conflict Studies Minor 210
Philosophy, Dept. of 155
Physical Education and Health, Dept. of 159
Physics and Engineering, Dept. of 162
Placement Testing 221
Plagiarism 237
Pledge of Integrity 3, 238
Political Philosophy Major 211
Political Science, Dept. of 170
Primary Care Pre-Admissions 205
Pre-Allied Health 30
Pre-Engineering 29
Pre-Forestry 29
Pre-Law Program 211
Premedical Programs 201
Program Variations and Options 25
Psychology, Dept. of 176

Q

Quality Points 230

R

Readmission 229
Refund Policy 250
Registration 226
Registration Holds 227
Religious Life 242
Religious Studies, Dept. of 181
Repeating Courses 224

S

Schedule Changes 227
Scholarships 10
Scholar's Privileges 234
Secondary Education .....
- See Depts. of Biology, Chemistry & Biochemistry, English, Mathematics, Physics & Engineering

Social Work, Dept. of 189
Sociology and Anthropology, Dept. of 193
Spanish .....See Modern Languages, Dept. of
Special Privileges 234
Staff Directory 270
Student Activities 243
Student/College Life 241
- Athletics 242
- Center for Student Success 244
- Health Services 243
- Office of Multicultural Affairs 243
- Residence Life 243
- Student Activities 243

Student Responsibilities 223
Study Abroad Opportunities 27

T

Theatre ....See Fine and Performing Arts, Dept. of
Traditions and Special Events 244
Transcripts 226
Transfer of Credits 225
Trustees 273
Tuition and Fee Information 247
Tutorials 27

U

Undecided Majors 31

W

Washington Semester and World Capitals Program 30
Withdrawal Policy 228
- From Classes 228
- From College 228
- Medical 228

Women and Gender Studies 217

Y

Young Center 31

Notes

Notes